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CONTENTS.

THE letter of our Utah correspondent, published elsewhere in this number, is well worthy of perusal, and shows that the mining interests of this territory are in a very prosperous condition, and that steady important developments are being made. Ontario (the old standby) comes forward with the very large production of $185,536.92 for the month of June. The Stormont takes the second position, producing $67,363.61, the largest month's production ever attained by that company. The Barbee & Walker makes a very respectable showing, having produced $26,576.39, and being fourth upon the producing list, the Old Telegraph taking the third position.

NEW PUBLICATIONS.

SECOND GEOLOGICAL SURVEY OF PENNSYLVANIA. REPORT QQ. *The Geology of Lawrence County. To which is appended a Special Report on the Correlation of the Coal Measures in Western Pennsylvania and Eastern Ohio. By* I. C. WHITE. *With a Colored Geological Map of the County and* 134 *Vertical Sections.* Harrisburg. 8vo, 336 pp.

REPORT QQQ. *The Geology of Mercer County. By* I. C. WHITE. *With a Colored Geological Map of the County and* 119 *Vertical Sections.* Harrisburg. 1880. 8vo, 233 pp.

The field-work for these two volumes appears to have been done in 1877 and 1878. They deal with some of the most interesting questions yet raised in the Pennsylvania Survey; among which is the subject of the Special Report in QQ, namely, the tracing of the stratigraphical connection between the work of this Survey and that of the Survey of Ohio. Besides its evident geological bearing, this work is highly important economically, as a guide to exploring and mining operations, particularly for coal and petroleum. Professor WHITE has very skillfully unraveled the intricacies of the problem before him by establishing, in addition to the persistent geological horizons previously known and followed, several new ones, which have furnished him, as Professor LESLEY felicitously says, with "duplicate keys." We can not undertake in this place to give the details of his work and conclusions. Suffice it to say, that he has corrected some errors of detail, inevitably occurring in the separate labors of the geologists of the two States; and that, although he leaves some points still doubtful, he has brought us nearer than ever before to a complete and accurate comprehension of the coal-measures of the region in question.

We gather from Professor WHITE's reports, and from the characteristically lucid and suggestive preface of Professor LESLEY in QQ, a few things specially interesting to the students of ore-deposits.

Concerning the formation of certain large deposits of brown hematite more or less inclosed in limestone, Professor WHITE gives on p. 40, QQ, and repeats verbatim, on p. 101, an explanation, based upon the great local development of the "Buhrstone ore," in the Houk bed. In this locality it has replaced the Ferriferous limestone, the full thickness of 22 feet being iron ore. The ore-body is very definitely bounded, abutting against smooth, solid limestone walls; and Professor WHITE very reasonably concludes that this ore is a secondary deposit from the general overlying calcareous stratum, by solution and reprecipitation in the place from which carbonated waters had already removed the limestone. Professor LESLEY (p. xv., QQ), admitting the probability of this process for the case in question, suggests that in other cases the hypothesis of a transmutation of limestone into limonite by the successive transfer of particles is more in accordance with certain indications. He notes, however, that in the instance of this kind which he cites, the original limestone was really a double carbonate of lime and iron, while the Ferriferous limestone is usually tolerably free from iron. In this connection, he mentions the curious fact that very few—hardly any—caves are known in the Ferriferous limestone of Pennsylvania, while the analogous limestones of Kentucky contain thousands. To the ingenious suggestions which he makes, in the form of queries, as to possible explanations of this difference, we venture to add one, which is perhaps involved, though not clearly stated, in what he says. Apart from the considerable differences which exist among limestones as to their solubility in carbonated water, it must be remembered that such water, penetrating the earth, may lose its free carbonic acid, and therewith its capacity of dissolving the limestone, before the latter is reached. The process of kaolinization, for instance, involves the fixation of the carbonic acid with the alkalies; and water proceeding from that process, though it might retain enough carbonic acid to attack somewhat the surface of limestone first encountered, would be likely to deposit silica or silicates in the first-formed interstices, and thus silicify, rather than greatly disintegrate or dissolve, the limestone. Again, we suspect that well-defined caves, as distinguished from mere gullies or pot-holes, are usually predetermined in limestone by fissures, along which the waters flow by preference. The prevalence of caverns in the limestone of Eureka, Nevada, and their almost total absence in that of Leadville, Colorado, may be explained, we think, by the suggestions we have made; and though these rocks are much older than the Pennsylvania formations in question, we consider the parallel significant, because the formation of the caverns is undoubtedly comparatively recent, and far more intimately related with the topographical and hydrographical conditions than with the geological age of the limestone.

We can not pass without notice the beautiful hypothesis offered by Professor LESLEY (p. xvii., QQ) to explain the genesis of the "pipe-ore limonites." These are not to be confounded with the "pipe-veins" of Derbyshire, for instance, which are merely tubular bodies of lead ore occurring in fissure-veins. The "pipes" of limonite are "singular steeples of botryoidal and radiated iron ore," which "rise from the solid ore at the bottom of some of our great mines to hights of 50 and even 100 feet, through deposits of ore-bearing clays which fill vast pots in the limestone country."

Professor LESLEY says he has long held that these deposits are made in caverns, the roofs of which were subsequently carried away by erosion. But there was difficulty in accounting for the support of the vast roofs which the size of some of the deposits required. He now suggests that these roofs were supported by "stalagmite steeples, rising to meet stalactites pendent from above"—a phenomenon common in large limestone caves. "If such a cavern, with all its piers finished, were to have its outlet choked, and to be filled with water through which insensible currents moved, it would become filled with ferruginous clays, and in the end all its piers of calcite would be metasomatized into limonite of the variety known as pipe ore." Subsequent erosion removing the roof would expose the clay as the country surface, and leave the metamorphosed stalagmites as pipes of ore standing in the clay and "descending with broadening bases to the floor." This explanation seems to us to fit the observed facts perfectly.

We regret that we can not quote at length Professor LESLEY's discussion of the formation of the "under-clay" of the coal-beds. It is not merely interesting in itself, but it is made, in his hands, to lead to a striking generalization. As usual, he offers merely modest "suggestions;" but suggestions from Professor LESLEY are as weighty as dogmas from less cautious investigators.

Starting from a peat-bog, or a lake invaded on all sides by sphagnous vegetation, as the first stage of the formation of a coal-bed, he argues that there must be a feeble water-circulation from the shores toward the center, since the water evaporated from the central and more open surface is replaced by percolation from the land. If the surrounding land be sandy or gravelly, the percolating waters will decompose the feldspar grains, leaving the quartz behind, and carrying into the lake the fine clay.

Professor LESLEY speaks of the feldspar as soluble; but the context

seems to show that he is thinking merely of its decomposition and of the resulting kaolin as carried in suspension, not solution. The alkaline carbonates, which would be dissolved in the water, do not, as he says the feldspar does, "settle beneath the evaporating surface through and beneath the floating peat." How could they settle, unless chemically precipitated? But this slip of the pen scarcely obscures his meaning.

If the surrounding land be clay, instead of sand or gravel, then the percolation is small, and the supply of water in the pool or marsh is kept up from the surface, and not underground. Hence, less decomposition of feldspar, and less deposition of clay-mud in the marsh.

Now, sand or gravel surrounding (and of course also underlying) a peat-marsh becomes afterward sandstone underlying a coal-bed; and in like manner, clay surrounding the marsh becomes clay-slate under the coal. Hence we should expect (and we do find) the largest and most persistent fire-clay beds next or near above sandstones rather than slates.

Passing one or two other corollaries, we come to a generalization of great interest. The process just supposed could not well go on in a bog or lake of any area too great to permit the transportation of clay-mud to its central portions by a very feeble water-circulation. Hence, if the hypothesis be correct, it follows that "in the Coal age there was always (or at frequent intervals) a great deal of dry, or comparatively dry, land, surrounding and connecting the coal-making pools, and that the connection between pool and pool was made by a sheet of moss over the surface of this land, resulting in a formation of coal subordinate in thickness, and perhaps in value, and superior in altitude above tide to the main bodies of the general coal-bed developed in the swamps." The actual development of the coal-beds of Northwestern Pennsylvania and Northern Ohio corroborates this conclusion, by showing the infinite variations of each coal-bed of the series in thickness, quality, roof and floor, and yet the possibility of tracing and identifying each bed, as separate from those above it or below it, throughout, one might always say, the whole coal-field. "In this sense," says Prof. LESLEY, "there are in reality no 'local coal-beds;' for by this term we are merely permitted to designate the more favorable localities of development—the thick and valuable portions—of a universal outspread of vegetation over land and water, flourishing at one date, interrupted here and there by unfavorable lands."

We have room but for one or two questions. In Professor LESLEY'S picture of the coal-forming periods, we see nothing but "sphagnous vegetation"—an open country, as it were, with moss floating on the pools, or creeping from one pool to the next. But if he must cover this country with the luxuriant and gigantic Carboniferous flora; if he fills his swamps with great tree-ferns, he will certainly alter the picture. Will he not also make his suggested process less probable? Can he then suppose with equal ease a predominant central evaporation, and a consequent centripetal current, however feeble, in each pool? Is it necessary to assume that all coal was found in *stagnant* pools? Are there not proofs in many beds of tides or currents? But if, as Sir WILLIAM LOGAN pointed out, every true coal-bed has its under-clay, must not the general hypothesis be applicable to all?

These questions do not detract from the merit of the suggestion of Professor LESLEY. Indeed, upon a first consideration of it, we are inclined to concede to it the highest merit. We think it could be, without essential change, so formulated as to permit a wider application than its present narrow statement indicates. Possibly the concluding generalization may be found consistent with a considerable modification of the basis upon which it appears to rest.

BINGHAM, PARLEY'S PARK, SILVER REEF, FRISCO, AND BIG COTTONWOOD, UTAH.

Special Correspondence of the Engineering and Mining Journal.

COAL DISCOVERY IN UTAH.

At Grouse Creek, in Box Elder County, about eight miles east of the line between Utah and Nevada, Mr. Heber R. Kimball has discovered coal of a superior quality. The largest vein is seven feet thick, and has been opened in several places, the deepest point being seventy feet. The vein pitches into the mountain at about twenty-five degrees. By rude tests it was found to coke splendidly. The coal is perfectly clean at the present depth. This discovery is of supreme importance to the Central Pacific Railroad Company, which concern is at present dependent upon the Union Pacific Railroad Company for its supply of coal. It is likewise a fortunate thing for the smelting interests of Eureka, Nevada, and perhaps for the same interests of Utah. The discovery is twenty-three miles from the Central Pacific road, and has been examined by the company's agent, who gave a flattering report on it.

BINGHAM.

The strike of horn-silver and copper-silver glance, made in the Victor mine, is holding out well. Until this strike was made last week, the mine was worked as a low-grade lead-ore producer, and was regarded in no other light. The new development is on the lower tunnel level in the east drift. The vein, as far as developed, varies in thickness from six inches to two feet, and will breast one thousand ounces to the ton. There are now ten tons in sight, about two tons of which are already sacked.

The Live Pine is taking out some fine ore. The west workings of the mine are improving as developments go forward. The Old Telegraph is shipping about twenty tons of ore daily. There is a rumor of change in the management of this mine. The Northern Chief Company is developing a fine vein of ore in its Queen mine, situated in Black Jack Gulch. Quite a number of its other mine-claims are looking very well. The Stewart No. 1 is to be started up again soon. The Yosemite's ore-body in the west tunnel is very fine. It is eighteen feet thick, and carries about fifteen ounces of silver and forty-five per cent of lead. The old dump at the Winnemuck & Dixon is worked over by leasers, who last year cleared $15,000. The Tiewaukee continues to improve. It is paying $10,000 a month dividends.

PARLEY'S PARK.

The Ontario bullion shipments have been increased to six bars daily, and I understand that is hereafter to be about the average product. The ore in the Empire is improving in richness as the ore-lode is penetrated. The company's new 60-stamp mill is to be erected forthwith, a portion of the machinery therefor having already been shipped from New York. Parley's Park is the liveliest camp in Utah, as every thing in the shape of a prospect is working. The Park City smelter is finished, and will be fired up in a few days on ores from the Utah and other mines.

SILVER REEF.

The Stormont Company's properties are all looking well, and the bullion shipments are now almost equaling those from the Ontario. The Christy Company's mines are showing well, the ore-reserves being constantly kept up by judicious developments. The Barbee & Walker is turning out about $1000 a day. The mines of this district are yielding more bullion than ever before.

FRISCO.

The principal mines are looking well. The Horn-Silver employs ninety miners, and is hoisting eighty tons of ore daily. The new steam hoisting-works will be put in next month. The Frisco Company's mines are generally showing well, especially the Cave and Carbonate. The machinery for the dry concentrator to be placed on the Carbonate is arriving.

BIG COTTONWOOD.

The Reed & Goodspeed tunnel is in 1535 feet, and the foreman is of the opinion that he is cutting the foot-wall of the vein. The estimated length of the tunnel was 1550 feet; so, if that estimate is correct, the vein will be cut 15 feet farther in. A northeast drift will be started next week, on the vein cut at a point 1425 feet in from the mouth of the tunnel. Mining operations are still slow in both of the Cottonwoods, however, as the surface-water has not yet subsided.

YOSEMITE.

SALT LAKE CITY, UTAH, June 25.

OURAY NOTES.

Special Correspondence of the Engineering and Mining Journal.

This little city is located in a small valley on the Uncompahgre River, immediately below its junction with Cañon Creek. It contains a population of some five hundred people, but shows far more life in proportion to its size than Lake City. The town consists, for the most part, of one principal street on which the chief business houses of the city can be found; other streets branch off from this, whereon most of the dwelling-houses are located. The immediate surroundings are highly picturesque, and Ouray ought to be able to hold its own as a summer resort. A number of hot springs arise within the city limits, some of which have been utilized for bathing purposes. The water contains sulphur, soda, and iron, and is just warm enough to be pleasant; it is also reported to be very efficacious for rheumatic cases, and the supply is unfailing. Two weekly newspapers are published here, one of which is the *Solid Muldoon*, edited by that terror of wild-cats, Col. Dave Day; the other is the Ouray *Times*, edited by Messrs. Ripley & Brother. Both are bright, newsy sheets, and are doing their best to show up the country in a proper light to their Eastern readers, while their local columns are full of dash and individuality. Two hotels, the Grand Central and the Dixon House, accommodate what transient travel there is; while a number of stores keep the neighborhood supplied with all the necessities and some of the luxuries of life.

There are quite a number of mines within a radius of a mile or so from town; but having heard such favorable accounts of the Smuggler and Cimarron mines, and having seen such marvelously rich specimens of their ore, I determined to look them up first. I visited them in company with Mr. James Carpenter, one of the owners of the Cimarron. Our course took us up Cañon Creek, through a valley full of charming bits of landscape, where we found a large force of men at work on the Cañon Creek Toll-Road, which is to open up the Sneffels and Imogene basins. It will be of incalculable benefit to the districts named, as an ore-market will be presented for some of their ores which can not now be mined with profit on account of the excessive freight charges. At present, all supplies have to be transported to these districts on the backs of pack-animals; and as the claims are owned mostly by poor men, it is about all they can do to work the yearly assessments required by law. About five miles from Ouray, the trail forks, one trail leading to the Sneffels Basin, the other to the Imogene Basin. Taking the first, we went on, passing some indifferently-opened prospect-holes, and, crossing Sneffels Creek, began our real ascent. A half-hour's steady walk brought us up to timber-line, and nothing but the rugged peaks of the range remained to be overcome. We left the trail shortly after timber-line was passed, and made for a break in the ridge that towered a thousand feet above us. We zigzagged up a snow-field some three hundred feet in length, which lay at an angle of about 40°, and came upon the Virginius mine, one of the crack mines of the Sneffels Basin. This mine produced $40,000 worth of ore last season from a thousand feet of development; but when I saw it, water was running from under a ledge of ice a foot thick that covered the floor of the tunnel with sufficient force to turn a fair-sized water-wheel. After resting awhile, we started upon our final climb to the summit of the last divide. Our way was very simple, only half a mile in length, and straight up; but I came nearer throwing up the sponge than I have yet in the mountains. Zigzagging up steep snow-fields may suit some people, but I found it harder work than any thing I had attempted yet. At last, however, after a painful march, the divide was reached—passed—and soon after, I was resting from my labors in the hospitable cabin of the Smuggler mine. Mr. Ingraham, one of the owners, played the host to perfection, and I desire to express my

thanks to him here, as well as to Mr. Ohlweiler, the other chief owner, and to Mr. James Carpenter, for their courtesy and unvarying kindness to me. Their mines requiring a more extended notice, I shall attempt to describe them in detail.

The Smuggler is in the San Miguel Mining District, and is situated in Marshall Basin, at the upper end of San Miguel Valley, and lies therefore within the confines of Ouray County. It is owned by Messrs. Ingraham, Ohlweiler, *et al.*, and the title is covered by a U. S. patent. The claim has a thousand feet of length on the vein, and is three hundred feet wide. The vein is gold and silver bearing, and the outcrop can be traced for over a mile. The extensions on the north are the Sheridan, Mendota, and Humboldt; on the south, the Union, Cleveland, Bullion, and Hidden Treasure, which latter ends in the creek bottom. Other locations on the vein have been made on the other side of the creek, but I did not get their names. The gangue of the vein is quartz and porphyry, the latter being found in horses throughout the vein. The average width of the vein is 10 feet on Smuggler ground, but widens to 18 feet between walls on Cleveland territory. The average width of the pay-streak is a little over a foot, and is near the hanging wall. The strike of the vein is about 15° W. of N.—15° E. of S., and the dip is about 75° westerly. I could not determine the character of the country-rock to my satisfaction, as it was too finely granular in texture, but take it to be diorite; I may, however, be mistaken. It is drilling-rock, and is separated from the vein by a thin selvage of clay. The ore assays from two to five hundred ounces in silver, and from two to eight ounces in gold, the gold and silver occurring, up to the present, in the proportion of 1 Au : 2 Ag. The pay-ore consists of argentiferous galena, stephanite, ruby silver, silver-glance, native silver, and gold (either occuring in the native silver, or chemically bound up in the iron or copper pyrites, with which the pay-ore is associated). The ore in sight can not be estimated, as there is too little development. According to the owner's estimate, some 200 tons are now lying on the dump or in the ore-shed awaiting shipment. This will be sorted down to 100 tons, of an estimated average value of over $300 per ton. The amount of ore shipped was not ascertainable. The ore ought to be concentrated from 5 to 10 tons in one, and then shipped to a good ore-market. The average yield per ton of the ore shipped so far has been over $300. The cost of extraction is about $10 a ton, and to this will have to be added from $15 to $20 per ton for packing to Ouray, over the pass into Sneffels Basin. The smelters pay $50 for 100-ounce ore, with increasing rates for higher-grade ores. The nearest smelting-works are in Ouray, but are not running at present. The drainage facilities are not first-class. To be opened properly and in a systematic manner, this vein will require a tunnel to be started in on the vein, at the lower end of the Hidden Treasure claim. This tunnel would be about 4000 feet long, and would drain the vein for over a thousand feet vertically. Being driven in upon the vein, this project would not be so foolhardy as it might seem at first sight. The ore mined in running the tunnel would reduce the working expenses considerably, if not pay a profit on the undertaking The development up to date consists of a 225-foot cross-cut tunnel, 240 feet of levels, and a shaft 100 feet in depth. Timber has to be packed up to the mine, a distance, perhaps, of a mile. Wood can be had for the cost of packing. The nearest wagon-road is about five miles off, at Columbia, on the San Miguel River: it leads to Ouray. From Columbia to the mine there is a good trail. The mine is located on a bench in the Marshall Basin, is over 11,000 feet high, and is accessible from four to five months in the year. During the other seven or eight months, the trails are closed by the snow. The distance from Ouray to the mine, by the Sneffels Basin route, is about 12 miles; by way of Columbia and the wagon-road, it is 50 miles off.

The Cimarron mine is also situated in the Marshall Basin, about a mile below the Smuggler, and is therefore also in the San Miguel Mining District, Ouray County, Colo. The present owners are Messrs. James Carpenter and J. Ohlweiler, who were also the original locators of the lode. An application for a patent has been made, and is expected shortly. The claim is a full one, 1500 feet by 300 feet. The vein at the surface is nearly exclusively gold-bearing, but at a slight depth changes to a regular gold and silver-bearing vein, like the Smuggler. The gangue is quartz, with porphyritic "horse" material. The average width of the vein, where I saw it, was from three to four feet. The pay-streak of argentiferous lead-ores is divided into two seams, each a half-foot in width, by a horse of porphyry, a seam lying contiguous to each wall. Besides these argentiferous lead-ores, gold is found in paying quantities nearly anywhere in the quartz gangue. The strike of the vein is nearly parallel to that of the Smuggler, being 25° W. of N.—25° E. of S., and the dip is about 70° westerly. The croppings are exceedingly bold, and can be traced for over a mile. The country-rock is similar to that met with in the Smuggler, and is hard-drilling rock, a clay gouge separating it from the vein. A small branch vein runs along parallel with the main vein, at a distance of perhaps 8 feet; but not having been opened up, I can not give any description except that it is identical, in external appearance, with the main vein. I could not ascertain what the average assay-value of the ore was, but believe the sorted ore will mill-run about the same as that of the Smuggler; the proportion of gold to silver is also about the same. The pay-ore consists of argentiferous galena, tetrahedrite, stephanite, native silver, auriferous pyrite and chalcopyrite, and free gold—associated with some zinc-blende. The silver ores occur by themselves in two streaks adjoining the hanging and foot-walls, and the gold seems to be all through the vein more or less, except in the porphyry horse perhaps; even that may turn out and contain gold in paying quantities. The amount of ore in sight can not be estimated, of course, too little development having been done. About a hundred tons have been extracted and are now waiting to be sorted. But little ore has been shipped. The silver ores can be easily concentrated, but the gold-quartz, and porphyry perhaps, will have to be stamped and put through a mill. The cost of extraction and packing to a market is about the same per ton as for the Smuggler. The drainage of the mine is perfect, and the natural facilities are such that no pumping machinery will ever be needed for over a thousand feet of depth on the vein. The tunnels can be run in right on the vein, and not a foot of dead-work need be blasted, unless chambers be constructed for the storage of powder, tools, etc. The development at present consists of a 250-foot tunnel and some open cuts on the vein. A good water-supply is furnished by Marshall Creek throughout the year; timber is near at hand, and can be had for the cost of chopping and hauling it to the mine. The nearest wagon-road is at Columbia, nearly five miles away; but a wagon-road to connect with that is feasible, and if the larger mines in the basin unite their strength, it will not cost them much. This mine, like the Smuggler, has a big future before it under proper and efficient management, but it will require a financially strong company to tackle either.

After going through the latter mine, we went on to the San Miguel. I can do but faint justice to Upper San Miguel Park, with its water-falls, its encircling hills, and the vivid tints of its coloring, Coming from the gaunt and forbidding ridges of the range, with its snow-clad uplands, down to this smiling valley, full of pastoral beauty, below, the change was as pleasing as it was unexpected. The porphyritic crags, rearing their weird and ungainly shapes above the snow, are replaced by rounded knolls of carboniferous sandstones and conglomerates, while the river meanders serenely on, through grassy meadows studded with flowers. At the head of the park are two water-falls, one of which, the Bridal Veil Falls, plunging in one mad leap over a precipice some two hundred feet high, forms a most exquisite background of scenic grandeur to the picture, and in after-years will doubtless delight the heart of many a *blasé* tourist who may happen upon this out-of-the-way place.

A couple of miles down the valley, the incipient city of Columbia was met with, located on the San Miguel, immediately below Bear Creek. This place consists of some half-dozen houses, as many more in various stages of development, and perhaps a couple of dozen tents. Although but in an embryo state, this town shows signs of vigorous growth, and bids fair to make a good running for first place with San Miguel City, a mile or so below. This latter has a fine town-site location, but is farther from the mines. There is a post-office here, and a tri-weekly line (buckboard) to Ouray, by which latter route I returned here.

FREDERICK M. AMELUNG.

OURAY, OURAY CO., COLO., June 27.

WEATHER REPORT—SUMMIT, COLO., JUNE, 1880.

Highest temperature, 70°+. Lowest temperature, 19°+.
Mean of maximum temperatures, 54·6°.
Mean of minimum temperatures, 33·7°+.
Mean of all the temperatures, 41·4°+.
Greatest daily range of temperature, 28°.
Least daily range of temperature, 8°.
Mean daily range of temperature, 19·5°.
Number of cloudless days, 3; of clear days, 21; of fair days, 5; of cloudy days, 1.
Number of days on which rain fell, 4.
Number of days on which snow fell, 1.
Total rain-fall and melted snow, ·285 inches.
Hailstorms, 2; thunderstorms, 3.
Prevailing wind, west. Maximum velocity, 33 miles per hour.
At close of month, but little snow in gulch; large fields of it near timber-line.
June 19th. First rain-fall of 1880.
June 21st. North Alamosa open; uncovered from snow.
June 29th. Marriage in high life (11,300 feet high): John Bowers and Mary Montroy. First casualty of the kind here; and doubtless the highest matrimonial conjugation ever effected in the United States.

SUMMIT, COLO., July 1, 1880. C. E. ROBINS, V. O.

PARLEY'S PARK, THE COTTONWOODS, BINGHAM, AND FRISCO, UTAH.

Special Correspondence of the Engineering and Mining Journal.

THE ONTARIO AND THE EMPIRE.

The main shaft has just been completed to the 700-foot level in the Ontario mine; a station at this point is opening, after which the sinking of the main shaft will be resumed and driven down to the 800 level. The vein will not be cut at present from the 700 station. Superintendent Chambers says that the mine contains enough ore developed above the 600 level to run the mill for another year. The run for the month of June ($185,536.92) makes a very handsome showing. The Empire continues to improve. The west 300 is now in seventy feet on the ore-vein, assays from which show steady improvement in the character of the ore. In the east 300, a small "horse" in the vein was driven through last evening, and the vein is now quite soft, with pretty certain indications of a strike. The vein has not yet been cut on the 400. The machinery for the new mill is arriving at Echo station on the Union Pacific Railroad. The ground for the new mill is being surveyed to-day. The erection of the works will be commenced immediately. The big pump in the Parley's Park mine has been started up. The Utah and White Pine are both producing smelting ore.

BIG COTTONWOOD.

A strike of 135-ounce carbonate ore is reported in the Maxfield tunnel. The Reed and Goodspeed tunnel tapped the vein this week, and it looks very flattering. The Colbath and Carioca properties are both showing very well. The Antelope and Prince of Wales shipped, during June, 100 tons of ore.

LITTLE COTTONWOOD.

The new machinery in the Emma is now almost ready to be started up. The water in Joab Lawrence is slowly subsiding. The Jordan Valley Railroad is running smoothly, and is bringing down ore shipments.

AMERICAN FORK.

In the Pittsburg mine, last week a body of 22-ounce ore was opened in the Bennett stope. The ore-bodies in this mine are very extensive, but they mine low in silver (12 ounces) and high in lead. The Silver Bell is making daily shipments.

BINGHAM.

Professor J. S. Newberry visited Bingham this week, and visited quite a number of the properties of that district—among others Old Jordan,

which he pronounced one of the largest ore-bodies he ever saw. The open cut on the surface has exposed the ore-belt for over 100 feet along its strike. The workings between the Jordan and the Excelsior are being connected at various points, and the showing of ore they together make is, to put it mildly, very large. The Tiewaukee is improving every day, and without stoping the ore, it is paying $10,000 monthly dividends. The strike of high-grade ore made in the Victor is holding out very well. Work progresses on the Queen, which is looming up.

FRISCO.

Vigorous operations at the Horn-Silver mine have been resumed. The new hoisting-works are finished, developments are being driven forward, and the smelter has been fully fired up. The Frisco Company's mines—the Carbonate and Cave especially—are developing by the uncovering of heavy ore-reserves; their new concentrator is going up, and will be finished this month. In Pine Grove District, 35 miles west of Frisco, Allen G. Campbell, of the Horn-Silver, together with his co-owners, has opened to a depth of seventy feet a four and a half foot seam of high-grade, free-smelting ore. As a consequence, prospectors are flocking into the district.

At Silver Reef, all of the mines are showing well, and the mills are turning out increased amounts of bullion.

A strike of $70-ore was made in the Golden King, Tintic, last week.

Several car-loads of antimony ore were forwarded to England yesterday. The owners of the property have a nine-foot vein of this ore, which will average about forty per cent, but as yet they have been unable to find a market for it in the United States.

The Utah bullion shipments for the month of June were as follows:

	Bars.			Cars.	
Ontario	139	$185,536.92	Old Telegraph	30	$40,550.00
Stormont	32	67,363.61	Brooks	11	24,590.00
Barbee & Walker	16	26,576.39	Hillside	5	15,943.73
Christy	9	18,015.98	Germanic	8	14,750.00
Leeds	4	6,841.46	Morgan	5	7,150.90
Crismon-Mammoth	18	6,683.00	Horn-Silver	2	5,500.00
Carrie Steele	4	3,845.44			
	Cars.				
Utah ore	4	10,745.28	Total		$415,091.81

SALT LAKE CITY, UTAH, July 2. YOSEMITE.

THE GASIFICATION OF CRUDE FUELS—THE DIFFERENCE BETWEEN THEORETIC AND PRACTICAL VALUES.*

By George S. Dwight.

(*Concluded from page* 6.)

These glaring evidences of a gigantic waste naturally raise the inquiry as to how it can be corrected and the rapid destruction of the world's fuel-resources checked?

The general reply is not difficult. As we have seen that the only desirable element or property in fuel materials is the combustible gas they contain, we must improve our gas-generating methods. To accomplish this, we must manifestly first use the materials in those forms in which the gasification is the most economic; and secondly, convert those in an atmosphere wherein nitrogen is reduced to a minimum. The first step will lead us to a radical change in the choice of fuels; for we find, as the chemist did in his laboratory, that the dust is better for our purpose, if rightly used, than the large-sized coal, and that the mountainous heaps of slack and powder which a mistaken opinion has accumulated at the mines as a waste product really represent greater available calorific values than those sent to market in the lump. In the second step, we can not, of course, entirely escape the baleful presence of N, but can only reduce its influence in the process of gasification. The percentage of heat which, as we have already explained, is exerted in the gasification itself, may be reduced only so far as a selection or choice of forms may affect it. It must be remembered, however, that as this is an inevitable prerequisite to all combustion, it should scarcely be counted a loss.

Let us examine the different methods of conversion which are distinctively known as gas processes. They may be divided into three classes:

1st. The method already described, known as the generator or Siemens process. In this, the fuel is placed in a furnace and the fire driven either by blast or natural draught of air, the oxygen thereof combining with the carbon, forming carbonic oxide, and with certain fuels releasing some small percentage of hydrogen. These two gases represent all that is combustible in the mixture, and constitute from one fourth to one third of its volume, which, of course, contains all the nitrogen of the air used in the generation, and always a few per cent of carbonic acid. These two last named constitute two thirds, and sometimes three fourths, of the total mixture, and their influence upon it as non-combustible constituents needs no further explanation.

2d. The distillation of gases from fuel materials by the system in general use for the manufacture of illuminating-gas. This method may be briefly defined as one in which bituminous coals are introduced into retorts to which heat is applied externally, and the volatile hydrocarbons thereby expelled. The gases produced are purely combustible and of the highest heating power. But they represent, under the most favorable circumstances, only about one sixth of the weight of the fuel, and this requires for its distillation about one fourth of the total original weight of the coal. The remainder (minus some residuals not practically available in calorics) still retains the objectionable mineral condition from which it must yet be converted into gas to meet our purpose. Aside from the collateral question of excessive cost, this process has the very grave objection of being limited in its operations to hydrocarbon materials, and can not, therefore, utilize the common and cheap fuels. Assuming that we are searching for a system capable of converting crude fuels into gas of such quality and at such price that the new form can compete in practice with the old for general heating purposes, neither of the methods mentioned will answer. The first, by reason of its excessive proportion of N and CO_2, would involve extraordinary means for its distribution, and, as already shown, would, for ordinary combustion, be entirely inefficient. The second, though a most concentrated fuel agent, is too costly, both by reason of the methods upon which it is generated and because it is limited to the partial distillation of a peculiar grade of materials. We turn now to the latest system.

3d. This is popularly known as the water-gas method. It may more properly be defined as the principle of converting carbon in an atmosphere of steam. The theory of this process is not new; on the contrary, inventors have, during most of the present century, striven to successfully apply it, and did the limits of this paper permit, the story of its pursuit would be most interesting. So often baffled have men been in this direction, that the matter came to be considered an *ignis fatuus*. But persistent chase amid the misty vapors of doubt has overtaken it at last—it is grasped and found to be a living flame! Time forbids an examination of the different processes by which the mutual decomposition of water and carbon have been attempted or accomplished. Suffice it to say, that, until recently, they have been failures in an economic sense, chiefly because the old and faulty principles of combustion were adhered to more or less, and the quantity and value of the gas produced did not represent any practical gain when compared with the practical value of the fuel from which it was derived.

Let us, in passing, emphasize this definition by repeating that, as the question to be settled for the consumer of fuels is, how much calorific value does he obtain from them in those operations wherein he uses them, we must make his experience the basis for comparison, rather than the laboratory values of the analyst. It hardly seems necessary to make such proposition; and yet the confusion of many and eminent minds, arising from dealing exclusively in theoretic values, is surprising. The first water-gas method which overcame this general defect, or worked economically, has become generally known as the Lowe process. Its operations, however, were entirely in the department of hydrocarbon gases for light, in which it has achieved an extended and marked success in the United States, where it has been influential in raising the standard for illuminating-gas and reducing its price, to an extent even greater than the later threatened competition of the electric light. As it represents an important step forward in the new art, a brief description is necessary. Abandoning the old retort principle in which the fuel was applied externally, with all the accompanying loss by imperfect combustion and excessive radiation, it adopted the plan of interior combustion, and advanced this plan to a remarkable degree by an entirely new feature in practical calorics.

It constructed a furnace with two compartments, in the first of which the carbon was burned, with an air-blast, to carbonic oxide, and this gas, passing into the second, was met by a second blast and burned to carbonic acid, the heat of this second combustion being accumulated in a mass of loose fire-brick, laid up in the second compartment. If any illustration of the wastefulness of ordinary single-furnace operations were wanted, we have it here; for it is found that the gases burned in the secondary combustion raise that portion of the furnace to a higher temperature than that of the chamber wherein the coal is burned. This process resembles somewhat the combined action of a Siemens generator and a metal furnace, with the essential difference that it is purely preliminary to the main operation. It is, in fact, merely the firing stage in which the fuel is burned completely, and therefore thoroughly utilized. For when a sufficient heat is acquired in the furnace, a cherry-red in the first and an orange to white in the second chamber, the main operation begins. Steam is introduced below the glowing coals, the carbon uniting with the oxygen of the water to form CO, and releasing the H. These gases, passing up from the fire-surface, meet the vapors of petroleum introduced at the top of the furnace, and, mingling with them, pass into the second chamber, where, in their passage through the heated bricks, the vapors become fixed gases, and so merge from the furnace. This mixture is what is known as a carbureted water-gas, and is found by extensive observation, both practical and technical, not only to be cheaper in most American cities, but incomparably superior in the important features of illuminating power, non-condensibility, and purity, to the ordinary retort coal-gas. It will be observed in the foregoing operation that the heat of the secondary chamber is employed exclusively in acting upon the hydrocarbon vapors from the petroleum, and which represent only 12 to 15 per cent of the whole volume of the gas generated, the 85 to 88 per cent represented by the water-gases being permanent as they rise from the coals, and therefore requiring no reheating. As the idea of making non-luminous water-gas for fuel purposes developed, it became evident that this considerable heat of secondary combustion must be utilized in some other way. It was tried in the superheating of the steam, which was led through the second chamber and thence back through the coal in the first; but no equivalent advantage was gained; that is, the volume of the gas to the weight of coal was not increased at all in proportion to the increased heat of the steam. At this stage, Mr. Strong introduced his improvement, which was as original in its conception as it has proved surprising in its results. Increasing the size and absorbing capacity of the secondary chamber, so that both the heat of the burning gases and of their waste products should be accumulated therein to the largest extent, he intercepted the current of entirely heated steam as it passed into the top of the first chamber, and before it had come into contact with the glowing coal, with a shower of fuel in the form of dust. It was discovered that the decomposition was actually accomplished at this point and the volume of gas wonderfully increased in a given time. The decomposition was thoroughly confirmed by leading the gases directly out without passing them into the heated coals. Here was a practical reversal of the older methods—instead of red-hot coals decomposing steam at a low temperature, now the steam was a vehicle of a heat sufficient to convert the coal-dust. Heretofore all that had been expected of a weight of carbon on the grate was, that it should decompose a proper weight of water; but this remarkable invention demonstrated that the weight of carbon burned on the bars of the Strong furnace would liberate energy sufficient to convert, with a proper proportion of steam, three other weights of carbon in a pulverized form. Here was a duplex advance in the art; the better, or, to speak more correctly, the costlier fuels were greatly economized, and the generally considered inferior or cheaper grades were suddenly made available. Before explaining this feature of the system, let us examine attentively the main advantage of the water-gas principle.

By a gasification of carbon in an atmosphere of steam, the objectionable presence and influence of N is avoided, the O of the water uniting with the C to form CO and releasing the H, the mixture therefore being a purely combustible one, composed of the very gases possessing the best heating properties known to science. By the Strong process, the N is a factor only in the preliminary or firing operation, and in that its influence is reduced to a minimum. We speak now only of the conversion of the fuel

*Paper read before the Swedish Society of Engineers.

to gas, of course ; for in the final combustion of the gas produced in atmospheric air, the N will again be present. But here, again, its effects are within strict limits, because a gaseous form of fuel possesses this great economic advantage, that with rational treatment it unites accurately and promptly with the requisite quantum of oxygen, and so avoids the disproportion of air which appears to be inevitable in the combustion of crude fuels, and which constitutes so serious an item of loss in their use.

The practical results by the Strong system may now be summed up in a few words. Thorough experimental researches, both in Europe and America, have been made, with a great variety of fuels, including different grades of anthracite, semi-bituminous, and bituminous coals (Newcastle and Höganäs), English and common gas cokes, the dust of these, peat, charcoal, and sawdust ; and the gratifying fact is established that all of them are available, with some variations in the fire-chamber, to meet special physical peculiarities of the material. On general principles, as the fuel burned on the grate is expected to supply all the energy for the conversion, not only of itself, but also of three times its weight, introduced in the powdered form, it is found preferable, at least, to have a good compact quality of fuel at that point.

A most important fact is the constancy of the gases from whatever fuel derived ; the composition, whether from ordinary peat or the best coke, being practically identical in all cases—substantially, two thirds of the volume H, and one third CO, less 5 per cent for N and CO_2. The mean of many analyses shows a variation between the H and CO of only about 5 per cent. The volume produced from a given fuel is in natural relation to the C present, subject to slight correction for absorption of heat by an inconvertible matter mixed with it. Taking English coke as representing nearly pure carbon, it has been found that one pound burned on the grate will yield 25 cubic feet = 56,000 cubic feet per ton of 2240 lbs. If with this same fuel on the grate, dust-fuel, as, for example, Swedish peat, was introduced through the hopper, as high as 25·1 cubic feet of gas for each pound of dust was obtained, besides the 25 cubic feet for the pound of coke. The question will naturally occur, why the inferior fuel should yield as much gas as the coke. Simply because a large part of the heating power of the coke was expended in firing the furnace, so that but part of it went into the gas, while all or nearly all of the peat was directly converted. Just here, it may be remarked, is additional proof of the economy in converting finely-divided carbon. If the 1 lb. of peat were introduced to the steam in one solid lump, an insignificant volume of gas would be evolved and in a much longer period of time. If it were broken in several pieces, the time of conversion would be reduced and the volume proportionally increased. The speed and product of conversion are stimulated somewhat in the ratio of the reduction of the particles, and it is believed that this advantage would more than pay the cost of crushing solid coal.

In countries where mountains of coal-slack have accumulated at the mines, this becomes a significant fact. In a realm where mineral coal is scarce, but its embryo, in the form of peat, exists in enormous deposits, it is doubly so. The Swedes of remote centuries will have abundant coal, but must then expend upon its gasification all the energy which the intervening ages will expend upon its solidification. Is it a good national economy to lose both the time and the heat which the delay represents, when the material is available for the pressing necessities of to-day? It would seem that the new system gives the true solution of the question how to utilize peat, and that efforts heretofore made to compact it have been in quite the wrong direction. It is better in the granulated condition. Plow it up in autumn, that the frosts may disintegrate it ; turn it to the summer's sun, that the excess of water may be evaporated, and it needs no further preparation. The experiment quoted was with peat containing 18 per cent of water, and the radiating heat of the furnace-room may be relied upon to bring sun-dried peat to that condition. With regard to the Strong gas, it should be stated that one cubic foot weighs ·04116 pounds. One pound possesses a theoretical calorific value of 8798 British heat-units. The theoretical flame temperature is 5432° F. = 3000° C., which is 900° F. = 515° C. higher than ordinary illuminating-gas.

Let us make some computations based upon the foregoing facts. If we take 25 cubic feet of gas as the product of 1 lb. coke, we have $25 \times ·04116 = 1·029$ lbs. gas.

Its theoretical calorific value is $1·029 \times 8798 = 9053$ units of heat. The theoretical value of the 1 lb. coke is 13,550 units, and consequently the value of the gas is $\frac{9053}{13550} = 66·81$ per cent of the crude fuel. Hence the cost of the gasification has been 33·19 per cent of the maximum value of the coke, as determined by the chemist. The practical question is, Has the conversion paid? To answer this, we must take into consideration the wide difference between the estimated values of the laboratory and those derived in actual experience with crude materials, already pointed out, and remember that we have now put the fuel into a more available form. In its new condition it may be possible to use it for many operations with a loss of not more than 10 per cent. If burnt with blast where its products would escape at a temperature in mass of 100° C., an allowance of about 12 per cent would have to be made for the latent heat of steam in the products of combustion. We do not calculate the heat of radiation, which would be a variable factor, but manifestly a reduced item, with a concentrated and intense fuel capable of use in reduced furnaces. Recalling now the figures of Dr. Siemens, Professor Grüner, and others, regarding the percentages of fuel realized, it remains simply to decide whether a utilization of from 2 per cent to 36 per cent of 13,550 heat-units in the coke is preferable to the realization of from 88 per cent to 90 per cent of 8798 units of heat in the gas. The principle of the dissociation of gases at high temperatures, should it enter into the combustion of the water-gas, need not unfavorably affect its efficiency, but on the contrary with a rational construction of the furnace wherein it is to be burned, should merely enlarge the zone of fusion. Besides the bare question of calorific value, we have collateral advantages of great importance connected with the use of gaseous fuel, which naturally suggest themselves. The qualities of constancy in temperature, ease and simplicity of management, have a manifest relation both to the time and labor of fuel operations, and to the cost and quality of the products as well.

If we claim that these economies will equal the cost of the labor in gasifying the fuel, it will be within bounds.

Many interesting features of the new system invite explanation, but time forbids. It must suffice to say on this occasion, that, as the practical success of the carbureted water-gas is thoroughly established, a maximum of light being produced at a minimum of cost, so a series of experiments on both sides of the ocean, in the application of the non-luminous gas to the welding of iron, the melting of iron and steel, the running of gas-engines, domestic heating and cooking, all confirm the high estimate formed regarding the Strong gas for general fuel uses. Utilizing all grades of fuel materials, converting them to identical gases, and to the very ones most efficient in combustion, and at a cost and in a volume which enables the gaseous product to compete in practice with the crude material from which it was obtained, it would appear that this system represents at least a principle which must render important service to the industrial arts. The fuel itself is a new one and will doubtless require the ingenious adaptation of structures for its best use, and this opens to the profession of engineering an interesting and important field for attentive skill and honorable profit. At this point the argument may perhaps stop. It has been shown that by the new system we can by an expenditure of one third the maximum theoretic heating power of a fuel, produce a gas representing two thirds of that calorific value theoretically, but *in practice* really possessing a higher available value than the original material.

This is on the basis of 25 cubic feet of gas from 1 lb. of English coke. But we have shown also that in blowing that 1 lb. coke to a red heat (the temperature necessary for the decomposition of the steam), we have evolved heat-energy sufficient to convert a considerably larger weight of carbon, if properly applied. In the experiment made with peat, we find this additional weight to amount to three times that of the coke, and that each 1 lb. of peat has yielded as large a volume of gas as the 1 lb. coke, although the peat contained little more than one half the carbon in the coke. The reason for this has been given. Without extending this paper now, your attention is specially invited to the fact that the production of such a volume of gas from an inferior fuel—that is, one representing far fewer heat-units than those ordinarily used—is an indication that the Strong system gives promise of approaching yet nearer to the maximum theoretic values of fuels than the 66·81 per cent now claimed. In other words, that more than 56,000 cubic feet of gas per ton of English coke may yet be obtained.

The object of this paper has been to establish :

First. That gasification of carbon in an atmosphere of steam possesses economic advantages in practical calorics.

Second. In the ignition of one weight carbon to red heat, enough heat may be derived from the combustion of the gases evolved to convert three additional weights, provided it is properly applied.

Third. This heat can be most advantageously employed by application to a jet of steam, into which the additional carbon, in either pulverized or fluid forms, is introduced. Because earlier water-gas methods have failed to utilize any considerable proportion of this heat of secondary combustion, is reason enough for their failure commercially ; because of its efficient application by the Strong system, *that* is meeting with marked success.

STANDARD RAIL SECTIONS.

The following letter, which appeared in London *Engineering*, we reproduce at the request of the writer :

TO THE EDITOR OF ENGINEERING :

SIR : The question of standard rail sections has been long enough studied with the aim to unite the interests of both consumers and producers of rails. With this view in mind, and as a rail inspector, I designed and published in 1870 a series of standard rail sections, of which the two weighing 50 lbs. and 56 lbs. per yard were very largely adopted for American railways ; they are equally broad in the base and the hight, and were made in iron. When steel came into use for rails, I was called upon to design forms for steel rails, and published a new series of standard rail sections in 1878. These are higher than the width of the base, the web and the flanges being somewhat thinner, owing to the greater facility in rolling steel than iron. Of these, the 50 lb. and 56 lb. sections have also been very largely adopted in America. In fact, since the revival of the American rail trade in this country, there are hardly any other sections asked for, and makers are deriving great benefit in being relieved from the numerous sections which, besides the cost of rolls for each one, cause great delay in executing orders. Unhappily, however, the publication of the two sets of sections—the new and old—sometimes causes a confusion, and in order to explain and avoid such, I have often been called upon to give a consultation, but have thought it more efficient to explain matters through your widely-circulated paper, to the railway engineer as well as the rail-makers. As drawings have been extensively distributed since they were published, it would now suffice to point out the difference so as to distinguish the old from the new. This can be done in two ways, first, by entering them, the new and the old, or by the year of publication, 1870 or 1878, respectively, or by the dimensions, hight of rail, or width of flange for the respective weights, 50 lb. or 56 lb. per yard. To call them by iron or steel would be less efficient, inasmuch as the old sections formerly made in iron are now often made in steel for maintenance and renewals of old roads, in order to keep the same fish-plates. The benefit in the new ones, although more advantageous in constructing new lines, is not so great as compared with the inconvenience of having two sections of fish-plates on the same road.

The old sections having been down in America for eight or ten years, must certainly have proved good, as they are now so much asked for, and it is certainly very gratifying to find that the American railway engineers have united their requirements in adopting these sections, both new and old, and they will naturally derive the benefit in obtaining the rails cheaper and quicker than if every one should have his own section.

My object has thus been reached to a very great extent. I have no pecuniary advantage in either the old or new sections being adopted, and unless I have the inspection intrusted to me, I could not be accountable for any correctness, either as to sections or quality of the rails, ostensibly made to the so-called Sandberg's section and specification.

Yours truly, C. P. SANDBERG,

19 GREAT GEORGE STREET, WESTMINSTER, May 3, 1880.

PROGRESS IN SCIENCE AND THE ARTS.

Technology.

Technical Brevities.—On the authority of the *Marquette Mining Journal*, we make the announcement that the Cleveland Iron Mining Company deserves the credit of first permanently introducing the *lighting of mines by the electric light*. The special form of light used is the Brush, and the *Journal* speaks of its effect as fairly rivaling sunlight, giving full illumination to the working-face, and making the roofs and pillars visible from all directions. The lights are suspended on pulleys from high places in the roof, and the wires are left slack to permit of raising and lowering the lamps without breaking connections.——The enthusiasm in favor of *cremation* still burns brightly on the continent of Europe. New *crematories* have been projected in Rome and in Padua by consent of the municipal authorities. The new departure has, however, received a check in conservative England, where the late government refused to legalize it.——One of the results of the obstacle met with in the *Saint-Gothard Tunnel*—that is, the calcareo-argillaceous schist that threatened the collapse of a part—has been to render very unlikely the undertaking of the Mont Blanc Tunnel project; since it is known that in the event of this being undertaken, about 3000 meters of this material would have to be pierced and vaulted. The difficulties encountered from this peculiar rock are due to its great affinity for moisture, in consequence of which it swells enormously on exposure to the atmosphere. ——The *American Society of Civil Engineers* has issued a circular letter, addressed to the engineering profession generally, asking for information respecting a number of details relating to the subject of the *preservation of timber*. This circular should receive a generous response from the profession. A great amount of information on this subject lies scattered about in the possession of private individuals or corporations; and the effort of the society to gather together this scattered information embodying valuable and now practically inaccessible results of American experience in this direction is deserving of cordial co-operation.—— Professor Palmieri, who is well known from his studies of Vesuvius, is reported to have affirmed in a recent lecture that, by means of seismographic stations, connected by telegraph, so that preliminary earth tremblings could be properly reported and registered, it would be just as possible to *foretell earthquakes* as to foretell storms, and to issue warnings of the impending phenomenon several days in advance, to threatened districts. ——Train No. 4 of the *Pennsylvania Railroad Co.* is reported to have recently made the run between Philadelphia and Jersey City in ninety-three minutes. The train, consisting of locomotive No. 724 and two cars, left Philadelphia at 12.51 P.M., and reached the Jersey City depot at 2.24 P.M. This is claimed to be the fastest run ever made between the cities named. ——Notwithstanding the unfavorable reports of the naval officers who inspected Captain Howgate's vessel, the Gulnare, as to her seaworthiness, the expedition sailed on its voyage on the 21st of June. The features of *Capt. Howgate's Colonization Scheme* for reaching the North Pole are doubtless known to our readers. The Gulnare will leave a permanent colony at Lady Franklin Bay, under the command of Lieutenant Doane, U.S.A., and will return to the United States for a second colony to replace the first, which, it is held, having by that time become acclimated, will be moved farther north, and so on, until the goal is reached.——In awarding to Boisbaudran the Lacaze prize of the French Academy, for the *discovery of gallium*, the committee remarked that the new element was not obtained by accident, nor by spectroscopic indications, but that the discoverer was led by theoretical reasoning to search for a new metal to fill a vacancy in his classification, in the ores of zinc. The result verified his anticipations, the new metal possessing almost identically the properties predicted for it in Mendelejeff's classification.——*New York's Obelisk* is now fairly on its way across the Atlantic, and the authorities are discussing the question of receiving and transporting it to its intended site in the Park. As the Street Department has expressed fears that the transportation of so heavy an object through the city may crush the sewers under the roadway, it is now proposed to float the obelisk up the East River to 86th street, which is a wide avenue, then hauling it by means of ways laid in the gutters, with a staying spanning the street, to the entrance of the Park, and thence to the spot where it is to be permanently erected, where it will be laid down until the foundation is ready to receive it.——The prospects of the several projects for *flooding the Sahara* are gradually proving small and beautifully less, and at present may be said to have been shelved to make way for railway projects from Algiers and elsewhere into the Soudan. As there is no question respecting the feasibility of these last-named schemes, there is some probability that they may ultimately be executed.

The Solar Engine.—M. Mouchot, whose progress in the solution of the enticing problem of utilizing solar heat as a motive power received distinguished recognition at the late International Exhibition at Paris in 1878, is still at work perfecting his apparatus. From published accounts we glean that, since May of last year, he has been carrying on experiments with his solar receivers near Algiers. His smaller mirrors (·80 m. diam.) have been successfully employed, we are told, for various technical operations not requiring a temperature exceeding 400° or 500°. Among these operations are specifically mentioned the fusion and calcination of alum, the preparation of benzoic acid, the purification of linseed-oil, the concentration of syrups, the sublimation of sulphur, the distillation of sulphuric acid, and the carbonization of wood in closed vessels. His large apparatus (3·80 m. diam.) is said to have been substantially improved. Referring to its performance, it is reported that in November last it raised 35 liters of cold water to the boiling-point in 80 minutes, and an hour and a half later showed a pressure of 8 atmospheres. Somewhat later, Mouchot is reported to have performed with it the distillation of 25 liters of wine in 80 minutes, producing 4 liters of brandy.

As regards the production of mechanical effect, which will have the most interest to our readers, the following statements are made:

Since March last, the receiver in question has been operating a horizontal engine (without expansion or condensation) at the rate of 120 revolutions per minute, developing a pressure of 3·5 atmospheres.

Slag Glass.—The *Scotsman* of late issue devotes some space to an account of the growing industrial applications of blast-furnace slag; and we note with interest its references to the success that has attended the use of slag as a glass-making material. These remarks have special reference to the practical developments of the suggestions made some years ago to the British Association for the Advancement of Science by Mr. Britton. We have several times alluded to this gentleman's efforts for the utilization of slag in the direction of glass-making; but though reports invariably announced that his procedure was a commercial success, the details were very meager. From the *Scotsman's* references to the subject we glean some interesting particulars. It is noted that as those slags which are rich in lime are the best adapted for making cement, so the most siliceous slags, such as those found in Northamptonshire, are the best adapted for glass-making. Large glass-works for the manufacture of glass from these slags have been established at Finedon in that county, with the title of Britton's Glass Company. Our contemporary notices that one of the important economic elements in this manufacture is the fact of the considerable fuel-saving in the operation, due to the fact that the slag which forms the bulk of the resulting product is already in a state of gaseous fusion. "It is the utilization of this heat, quite as much as that of the slag itself, that has rendered this manufacture profitable." The molten slag is conveyed (presumably in covered iron vessels mounted on wheels) to the glass-furnace in the immediate vicinity, and is poured, after the addition of certain necessary glass-making ingredients, directly into the "continuous melting-furnace," where, after proper fusion, it is run into another chamber, from which it is drawn by the workmen and fashioned into shapes. The products of these works comprise chiefly such articles as wine and beer bottles, which do not require a colorless glass. For the finer qualities of bottle-glass, about 50 per cent of slag is used; but for the coarser qualities, a much larger proportion of this material is employed, and the glass is said to be stronger and tougher than that made in the usual way. The *Scotsman* concludes that the properties which this product is shown to possess render it specially applicable for such objects as tiles, cisterns, pipes, etc., and as it can be produced at a cheaper rate, our neighbor thinks it probable that slag-glass will yet form one of the most important of the many useful products of this hitherto neglected material.

Malleable Nickel and nickel products are among the novelties produced at the establishment of Dr. A. Fleitmann at Iserlohn, Germany. Dr. F., it will be remembered by some of our readers, not long ago made some interesting experiments respecting the action of magnesium on the malleability of nickel and cobalt. He found that the addition of very small quantities of the last-named metal overcame the brittleness of nickel and rendered it far more tractable to manipulation. This he ascribed to the action of the magnesium in removing the oxide and other impurities from the metal. He has since reported the observation that an alloy of nickel with a small percentage of zinc (about 5 per cent) is to some extent malleable, and may be rendered completely so by the addition of so small a quantity as one twentieth of one per cent of magnesium. The product resulting from this treatment is capable of being welded to itself and to iron and steel. Messrs. Fleitmann & Witte are said to have rolled sheet-nickel two feet wide, and to have turned out nickel-plated (faced?) sheet-iron or steel. The process is to weld thicker plates of nickel to those of iron or steel, heat the same to the required temperature, and then to roll them out together in the ordinary way, which, it is said, may be done without scaling.

The Illinois Ship-Canal Project, designed to establish a thorough water-route from the great lakes at Chicago to the Mississippi River, has of late been considerably ventilated in the newspapers. A lengthy statement of this proposal has lately been made by Mr. Daniel C. Jenne, Chief-Engineer of the Illinois & Michigan Canal, from which we glean the following details: The first division of the project consists in the enlargement of the Illinois & Michigan Canal from Chicago to Joliet. This is now 48 feet wide on bottom, with side slopes 1 to 1 in earth, making 60 feet surface-width at 6 feet deep. It is proposed to enlarge this to 144 feet wide at bottom with side slopes 1 to 1, giving 160 feet surface-width at 8 feet deep.

The second division would extend from the terminus of the first to La Salle, a distance of 67 miles, and would involve the improvement of the Des Plaines and Illinois rivers by means of locks and dams, and an independent short piece of canal around the rapids occurring at Marseilles.

The third division embraces improvements of the Illinois River from La Salle to Grafton on the Mississippi, a distance of 227 miles. Of this, 90 miles have already been finished by the construction of two locks and dams. The cost of this entire work is estimated at $13,196,913. Should it be completed, it would establish inland water communication between the Gulf of Mexico and the cities on the Mississippi, through the city of Chicago, with the cities of the St. Lawrence and its gulf in one direction, and with New York and other Atlantic seaboard cities in another.

Sheffield Water for Tempering Steel.—A curious example, which illustrates to what extent prejudice may influence the "skilled workman," was lately brought to light in the case of a number of Sheffield cutlers, who were imported into this country by an English manufacturing firm, who proposed to make Sheffield razors in the States. The cutlers, having somehow got the notion that American water would not suit for hardening, they actually had tanks specially built for the purpose of storing a supply of Sheffield water, and carried it across the Atlantic. Here we follow a correspondent of the London *Trade Journal:* "The day came, however, when the water was exhausted, and recourse was had to the native element. Then it was found that the rumor was no fiction. The American water would not harden razor-blades, nor even give the polish necessary for the secondary sorts." The result of this unfortunate state of affairs, the *Journal* adds, was the return of the wanderers, and saving Sheffield from the fear of seeing one of her oldest industries transplanted to the States.

We remember seeing a mention, at the time, of the fact that a lot of Sheffield cutlers had brought their native water with them, but looked upon the statement as too absurd for serious belief. But the verification of the fact removes all doubt. For ignorant prejudice and bull-headed stupidity, the Sheffield cutlers deserve the champion belt. The time was not long ago, one of our exchanges remarks in taking note of this fact, when English blacksmiths in this country could work with nothing but English steel; and when given any thing which they suspected to be American steel, they were sure to spoil it, and were vehement in their

assurances that it could not be worked successfully. This lasted until employers found out that American steel could be worked as well as any other, if it only had English marks on it; and when the blacksmiths found they had to choose between American steel or looking for another place, the change in the quality of the home-made product was surprising.

The notion of the Sheffield cutlers is, of course, the most arrant nonsense, and could only have had its origin in ignorance and prejudice. We are surprised, however, to find the London *Trade Journal* take it up without comment. Tempering steel and making Burton ale are two very different operations.

Ransome's Slag Cement.—Our contemporary, London *Engineering*, devotes some space in a late issue to an account of the experiments of Mr. Frederick Ransome's new process for producing hydraulic cement of very superior qualities from blast-furnace slag with suitable mixtures. Our readers will recall the general features of Mr. Ransome's process from our recent references to the subject in this department. Mr. R., it now appears, has obtained even better results by modifying his process by the employment of slags containing a high percentage of alumina, the product giving even better results as to strength than in his earlier experiments. The inventor has proceeded on the theory of MM. Frémy, Ruot, and Chatony, that "aluminate of lime is the principal hydraulic agent in cements;" and that the setting of a hydraulic cement is due to two causes: (1) To the hydration of aluminates of lime; and (2) to the action of hydrate of lime upon the silicate of lime and the silicate of alumina and lime which exist in all cements, and in this case act as puzzolanas. Our contemporary states that the results arrived at by Mr. Ransome fully corroborate these views, and by attaching full importance to the presence of alumina, the invention in question has succeeded in greatly increasing the strength of the new cement. Samples, it is added, show remarkable hardness and closeness, and the material promises to become an exceedingly valuable one. By the employment of blast-furnace slag-sand (Mr. Wood's process), the greater part of the refuse involved in the production of the clinkers used in the ordinary process of cement-making is avoided, the cost of fuel and grinding is reduced, and a useful application is made of what has been a practically useless material.

MESSRS. HARRINGTON & OGLESBY, manufacturers of perforated sheet metals, at Chicago, opened their shops for business only last February, but by skill and push the firm has already built up a very extensive trade in all parts of the country.

A RAILROAD TO THE TEN-MILE DISTRICT, COLORADO.—A dispatch from Denver, dated July 8th, says that the Denver & Rio Grande Railway Company has ordered the immediate extension of its Leadville line to the Ten-Mile Mining District, which it expects to reach before the close of the summer. This is one of the lines covered by the public subscription in aid of the railroad last November.

LIGHT LOCOMOTIVES.—Tramways with rails weighing 16 pounds and upward per yard, of thirty or thirty-six inch gauge, and equipped with small locomotives, are used now in many places where the work was formerly done at great expense and waste of time by animal power. These steam tramways are specially useful in mining districts for carrying ore or fuel and supplies. In a mountainous country, the cost of such roads, including the locomotive and cars, may be no greater, and sometimes even less, than the cost of an ordinary wagon-road, and the steam-road has a greater capacity, which can at any time be increased by running night and day, and it is less liable to obstruction and less expensive to maintain. H. K. Porter & Co., of Pittsburg, Pa., make an exclusive specialty of light locomotives, and have a number of styles and sizes adapted to the different grades and various weights of rail usually found on mine tramways. The smallest size of these locomotives has cylinders five inches bore and ten inches stroke, and weighs, in working order, only about three tons. When made for use inside of mine tunnels, these miniature locomotives are odd-looking machines, often not much over four feet high, so that a man can easily look down the smoke-pipe while standing alongside the track, and, if he has tolerably long legs, he can ride the engine, sitting astride the water-tank. In spite of their diminutive size, these little turtle-shaped machines are very powerful. One engine does the work of ten to thirty or more mules at about the daily expense of operating two to four mules, while the cost of the engine is hardly more than the animals it replaces. Mining property situated at a distance from railroads may be made as valuable as property adjoining railroads, by building tramways and using these light locomotives for hauling ore and supplies. Low-grade ores, which are often reckoned not worth mining because of the cost of wagon transportation, can be hauled by steam, and so profitably mined. When the distance to the main line of road is long, heavier engines, adapted to use on 25 to 35-pound rails, may be needed. The usual gauge is 36 inches; but for tunnels, or roads where there is much hill-side work, 30 inches gauge may be preferable, and still narrower ones can be built; the Longfellow mine, of Arizona, having from this firm a tramway locomotive for a gauge of only 20 inches. Messrs. Porter & Co. have published an illustrated catalogue, containing, besides descriptions of light locomotives, much information of value, and which may be be had on application.

GENERAL MINING NEWS.

ARIZONA.

EMPIRE.—The Tombstone *Epitaph* says that the double-compartment shaft is down 290 feet—the bottom of the shaft being in a fair grade of ore. The 200-foot level, connecting the old and new shafts, has been completed. The west cross-cut from the 200-foot station in the new shaft has been extended 90 feet, and the east cross-cut, from the old shaft, has advanced 100 feet, the face of which is producing ore assaying from $100 to $400 per ton. The formation in this cut is very hard, and progress is consequently slow.

MACK MORRIS.—A correspondent of the Phœnix *Herald* says that at this mine they are sinking a large and well-timbered double-compartment working-shaft which is now about 170 feet deep. South and east of this shaft are several prospecting-shafts, and on their dumps considerable fine ore.

OLD HAT DISTRICT.

The Richmond has reached a depth of 25 feet, and has about 42 inches of good ore. The Merrimac is down only 12 feet, but it is in a breast of ore 4½ feet wide, the rock being very rich. About 100 tons of the stuff lie on the dump. The Sundown, at a depth of 10 feet, shows rock that assays $150, and which runs pure silver when smelted in a crucible.

CALIFORNIA.

THE BODIE DISTRICT.

We condense from the *Free Press* of June 29th:

BELVIDERE.—On the 500-foot level, work will be resumed in the main south drift, and an upraise started therefrom to connect with the Belvidere-Bulwer joint south drift. Work will be resumed in main shaft to-morrow, and a 600-foot level station will be opened within 30 days. With the upraise we connect our work with the ore body discovered in the joint south drift, 75 feet above and 25 feet below our 400-foot level. With our 600-foot level we open on the new ore-chimney discovered in the winze from the 500-foot level.

BOOKER.—Work in the east cross-cut, 500-foot level, is pressed with all possible dispatch, the rock being of a somewhat harder character than heretofore.

BOSTON CON.—The Ben Butler shaft has been sunk 25 feet during the week. The 300-foot level has been advanced 17 feet. The 200 level has been advanced 20 feet.

CHAMPION.—The east cross-cut is pushed vigorously forward, the formation passed through being hard, but it is slowly improving, and fair progress is making.

CONS. PACIFIC.—The shaft has been sunk 8 feet during the week; total length, 76 feet below the 500-foot station. The bottom of the shaft is in hard working ground.

JUPITER.—The superintendent's report of June 26th says: On the 500-foot level, in the main south drift, there is considerable improvement, but nothing of importance as yet. We to-day reached the east wall of our main vein formation, and will follow its course, leaving the drift a little to the west. In south drift No. 3, we again seemed to have passed through the top of an ore-chimney, pitching downward and into the bottom of the drift. The ledge holds its regular course and dip as we follow it, and is showing considerable improvement to-day. On the 600 foot level, work in the main west cross-cut was suspended during a portion of the week, at which time we started a south drift from the station on what is apparently the east side of the vein formation had on the 500-foot level. Our west cross-cut has, we think, demonstrated that we have passed through the ledge which we opened on the 500-foot level by the main south drift and south drift No. 2.

SUMMIT.—The south drift, 530-foot level, has been extended during the past week 12 feet, making a total distance from the incline of 395 feet. The ledge is 2 feet wide. The east cross-cut from the drift is in 130 feet, having been run since last report 26 feet. The face of the cross-cut is in very hard rock. The south drift on the East Summit vein is in 45 feet; progress for the week, 10 feet. The ledge is 6 feet wide.

DEFIANCE.—At present, the east cross-cut, 475-foot level, is in most favorable ground. To the west a good-looking ledge 12 inches in width of low-grade ore has been passed through. The face of this cross-cut is in good working ground.

TIOGA CONS.—The superintendent of this mine, under date of June 26th, reports as follows: The progress in the east cross-cut, 800-foot level, since last report, was 42 feet. The ground has become more favorable for progress, and the whole formation and character of the rock in the face to-day is such as distinguishes the wall-rocks of the veins in this and adjacent mines. We may confidently look for some important developments in this cross-cut within a short time. The west cross-cut was advanced 28 feet, and the face is now in a soft, kindly formation, composed of grayish trachyte, mixed with yellow clay. There is some water coming from above in the seams, but not enough to impede our work. The shaft is 819 feet in depth, with hard blasting ground in the bottom and some water seeping in.

UNIVERSITY.—The east drift, 510-foot level, during the week has been advanced 26 feet; total length, 125 feet. The face is in the most favorable character of bird's-eye porphyry, and showing every characteristic of the regular Comstock formation. During the week, a three-foot ledge of good ore has been cut, and showing strong, clean walls, which look well.

LAKE DISTRICT.

The Mammoth City *Herald* of June 26th has the following:

H. L. AND M. C. JOINT TUNNEL.—Since report of Saturday last, a distance of 22 feet has been made, giving a total length of 855 feet.

MAMMOTH.—Work was begun in tunnel No. 2 this week; and after clearing away the accumulations of *débris*, the header was advanced ten feet. In No. 3 tunnel, 35 feet was made in the header, giving a total length of 1029 feet. The cross-cut south of the breast in this tunnel is now in 25 feet, and two cross-cuts have been started still farther south. On the level which has been opened in the Hardy winze, 80 feet above No. 3 tunnel, the south drift has been run 14 feet and the north drift 15 feet. In No. 4 tunnel, the flow of water has increased to such a formidable stream that it has been deemed expedient to discontinue work on the header to allow time for drainage.

COLORADO.

CLEAR CREEK COUNTY.

The Georgetown *Courier* of July 1st has the following notes:

CHAMPION.—This lode is opened to a depth of 420 feet, showing a crevice of two feet of mill-dirt, and a seven-inch vein of pyrites. The mill-dirt runs from 5 to 16 ounces in gold per cord, and the pyrites from $70 to $110 per ton. A double-sweep California whim is used for hoisting, but it is the intention of the owner to soon replace it with steam-hoisting works capable of working to a depth of 1000 feet.

GENEVA COMPANY.—Latest information from Geneva District states that the Baltic shaft, which is down 250 feet, has three feet of ore in its bottom. One part of the lode carries a foot of solid gray copper that assays in the neighborhood of 1000 ounces in silver per ton, and another part carries two feet of iron and copper pyrites worth $40 per ton. The 180-foot level is driving in splendid ore, and the monthly output of the mine is very satisfactory. The company is engaged in building a large calcining furnace, and will commence smelting again about the first of September, by which time it will have 1000 tons of ore on hand. It is now prepared to purchase ore from the neighboring mines.

REPUBLIC.—This lode, on Independence Mountain, has a 200-foot level and a 75-foot level, which show an ore-vein from ten to twelve inches thick, composed principally of galena and copper pyrites carrying silver and gold. They have also just struck ore in the lower level, having run a cross-cut 125 feet to the lode. About 100 tons of ore have been taken out, the most of which was shipped to Black Hawk, and milled from 100 to 125 ounces in silver per ton. There is plenty of timber handy to the mines, and no trouble from water.

STAR OF THE WEST.—The lower adit has been driven 375 feet, the last 65 feet being on the ore-vein and showing a continuous streak from 10 to 24 inches in thickness, that is worth, net, about $150 per ton. The second adit is about 125 feet, perpendicular, above the lower one, and has been driven a distance of 125 feet, the last 40 feet being on the ore-vein, which is continuous. The ore at this place is similar in character to that of the adit below, but is richer in gold and silver, mill-runs showing 7½ ounces in gold and 240 ounces in silver. The third adit is 100 feet, perpendicular, above adit No. 2, and has been driven 140 feet, the last 65 feet being on the ore-vein, 40 feet of which shows ore averaging about six inches in thickness, and according to mill-runs, is worth 7½ ounces per ton in gold and 240 ounces in silver. The composition of the ore-vein is copper and iron pyrites, galena, and bismuth ore, which is more or less mixed with quartz.

STEVENS.—This company intends to put a hoisting-engine at the tunnel level during the coming summer, and commence to sink the main shaft again. The

deepest working on the lode is now about 600 feet from the surface, and it is thel intention of the company to sink 400 feet deeper, and to run another tunne from the base of the mountain to intersect the bottom of the shaft.

VULCAN.—The raise in this mine, Republican Mountain, continues in excellent ore, the vein being from four to six inches thick, and mills from 400 to 500 ounces per ton in silver. The Egan tunnel, which is being run for this lode, is pushed steadily ahead, there being about 150 feet farther to go.

The *Miner* reviews the mines as follows :

GEORGE PEABODY.—This is on Columbia Mountain, and is noted for the richness of its ore. Assays out of it have run as high as 20,000 ounces to the ton, and mill-runs of 400 ounces and over. The developments consist of a 40-foot shaft and a 15-foot drift. A party of Eastern capitalists is about to purchase the property.

LULU.—This mine is situated a short distance above the Boulder Nest, on Red Elephant Mountain, and is doing handsomely at present. The shaft is 300 feet deep and there is 700 feet of drifting.

MURRAY.—In the 65-foot level, they are at present stoping east on a fine body of mineral. They have 20 inches of 200-ounce ore. The ore-reserves on the 80-foot level continue large. They are stoping here also, and their labors are richly rewarded. The drift east, on this level, has been run 19 feet. There is a good streak of galena in the west drift ; this has just been commenced. An immense amount of dead-work has been done, but it has greatly improved the looks of the mine. The engine will soon be placed in position, and then working the main shaft will begin again. It is the intention of the owner to run this shaft down 500 feet ; there is splendid ore in the bottom of it. Three car-loads of ore have been shipped this month, and they have two more ready for shipment.

RED ELEPHANT.—There are from 30 to 40 tons of ore a day being shipped from the Red Elephant Mining Company's properties, which consist of the Boulder Nest, White, White Extension, and Free America. They are working a large force of men, and the mines are all in good pay.

SILVER CREEK MINES.—The Oshkosh is situated near the Dictator, and is opened by a shaft 50 feet deep, known as the Hutchison shaft. A contract has just been let to sink this 50 feet deeper, after which drifts will be run and the mine developed. A 14-inch pay-streak was struck on the hanging-wall this week.

GILPIN COUNTY.

The *Register-Call* of July 2d says : The full capacity of the Bobtail mill—125 stamps—is now running, the last section of 25 stamps having been started up this afternoon. The large-sized breast water-wheel now drives a portion of the stamps. The wheel is one of the best ever constructed in the country ; the brackets are of iron, and it is claimed they are much better and more economical than the wooden ones. The mill has a capacity for crushing 125 tons per day.

LAKE COUNTY.

AMIE.—The Leadville *Democrat* says that this mine is sacking all its high-grade ores and storing them away in unused drifts until its new engine and hoister shall be in operation ; possibly, also, in anticipation of a better price.

BIG PITTSBURG.—The Leadville *Herald* says that the superintendent is again pushing operations. The Joe Bates shaft was deserted on account of its small size and unsafe condition, and a new shaft is sinking a short distance to the northeast. The former shaft on the Stray Horse caved in while being worked some time ago, and that is also consequently deserted and a new shaft is being sunk across the gulch. The Keene shaft, on the Big Pittsburg claim, near the office, is also being worked and also the McCormick shaft near the Hibernia.

CARBONATE HILL CONS.—The drift toward the Pendery will be continued, and sinking on the shaft also resumed.

CLIMAX.—The Leadville *Democrat* says that this mine covers a territory of about seven acres, and has a most desirable location on Fryer Hill. Five shafts afford access to the ore-deposits and provide facilities for prosecuting prospect-work. In two of these only work is being done at the present time. The principal shaft is the new No. 5 shaft, situated a little to the east of the center of the claim. This shaft has reached a depth of 200 feet, and work is still continued. At 125 feet from the surface, the first level is encountered. There are two branches, one running directly north to connect with shaft No. 2, and the other northwest to connect with the workings of shaft No. 3, one hundred feet distant. Descending shaft No. 3 to a depth of eighty-five feet, the first working level is reached, from which large amounts of good ore have been taken out in drifting and developing. A short distance to the north and west of the shaft, and a little below the first level, immense bodies of high-grade ores are exposed to view, by systematic and regular drifts. A winze will be driven down at this point to connect with the drift from shaft No. 5, which will furnish an easy and convenient way of getting the ore to a good shaft, where it can be hoisted rapidly and economically. Shaft No. 1 is not worked now, the engine having been taken from this place, and put over shaft No. 5 ; but as soon as a new engine can be obtained, work will be resumed at this point. Nearly all the ore taken from the Climax has been mined from a small district not one hundred feet square, lying between shaft No. 1 and the Dunkin line. Work is being carried on, also, on the main first level from shaft No. 2, extending southward, and will soon connect with the north drift of shaft No. 5. It is the intention to extend this drift the entire distance of the claim, thus affording a basis for all future prospect-work. Very little ore is mined at the present time, the efforts of the superintendent being directed especially to opening up the mine systematically, so that when it shall be desired to take out the ore now in sight it can be done without delay and unnecessary expense, and also that further prospect-work may be carried on with greater ease and rapidity.

COLORADO PRINCE.—The Leadville *Herald* says that on the 30th ult. the general manager of the mine and mill came down to the Clarendon with two handsome gold bricks, produced from the ore of this mine, and reduced at the stamp-mill of the company. The two bricks weighed over 700 ounces, and were valued at over $10,000. The gold was shipped to New York July 1st. The mill of the company has been shut down for a short time, for repairs, but will again start up to-day. A large body of ore is now exposed in the mine, and there will be no difficulty in keeping the mill supplied. In the level running from the shaft toward the tunnel, and on the same level, at 184 feet from the surface, a body of gold quartz has been struck twelve feet in thickness.

DENVER CITY CONS.—The *Democrat* of the 1st inst. says that the work of enlarging and retimbering the Denver City lode has been progressing slowly but steadily, and is now within twenty feet of being completed. The old shaft had been sunk to a depth of 260 feet, and had penetrated the iron ten feet, when it came into the possession of the Denver City Consolidated Company, who immediately set about to reconstruct the shaft, which work is now nearly completed, when the shaft will be pushed farther down. The contact and iron encountered in the Denver City is substantially the same as that found in the Emmett and Robert E. Lee mines.

The *Herald* says that the Shamus O'Brien has already shown a large amount of low-grade mineral, and it seems probable that a better quality will soon be reached. On the Quadrilateral, sinking is still prosecuted, but as yet with no results.

DUNKIN.—The *Democrat* says of this mine : Over 2000 feet of shafts and drifting have already been done, yet the property remains comparatively undeveloped, and the continuation of prospect-work can not fail to disclose many large and rich deposits of ore within the territory of the Dunkin. Four shafts have thus far been sunk, all near the southern extremity of the location, from which a series of drifts and stopes radiates in all directions. The Dunkin employs about sixty men at the present time, and, on account of the large amount of prospect-work, is not taking out, on an average, over ten tons per day. The bulk o the ore is of good grade, and the entire amount taken out nets, on an average $100 to the ton. During the month of May, which included a portion of the time when the mine lay idle on account of the strike, the product amounted to 217 tons of ore, most of which was sold to August R. Meyer, and which brought over $20,000.

GLASS-PENDERY.—The *Democrat* says : Work on this property, though prosecuted with a small force of men, is making considerable headway. About twenty-five men only are employed, and the majority of them are engaged upon prospect-work ; still the ore output averages twelve tons per day, besides sixteen tons of lime. The energy of the foreman just now is particularly directed to opening the drift which is to connect the Glass shaft with the Pendery. Six hundred feet of this drift have already been run, and only about fifty feet more remain to complete the work. It is the intention of the management to work the entire territory through the Glass shaft, and with this end in view drifts are running.

HIBERNIA.—The *Herald* says that the Hibernia has opened into a large body of rich mineral toward the northwest from the shaft. It is undoubtedly the same ore-body extending through the Lee ground.

LILLLE PITTSBURG.—The Leadville *Herald* says : Ever since the report first started that the Little Pittsburg mine was played out, it has constantly improved. The ore-body upon which the company has been working in the New Discovery was exhausted so suddenly that scarcely any one was aware of the fact. Then a system of prospecting was begun, and it is shown that ore exists in more or less quantity in nearly all parts of the mine.

MORNING STAR.—The new shaft is sinking as rapidly as possible, the main incline is being continued, the last level running north is being driven, and three levels are being run south. It is not the intention to work the mine actively for the production of ore before fall, but prospect-work will be continued.

ROBERT E. LEE.—The *Herald* says : In the mine at present no stoping whatever is being done, and simply drifts opening up the property are being run. From this development-work about thirty tons of ore are mined every day. Toward the gulch, or south-east from the shaft, a large body of clay, carrying chlorides of silver, has been discovered, and is being developed. There are at present one hundred men employed on the mine. Arrangements are making to put up extensive machinery. The new engine of 30 horse power arrived on the 30th ult. It is of the Ensminger & Davis make, and is to have a double spool, so as to hoist from both compartments of the shaft at the same time.

PARK COUNTY.

A correspondent of the Denver *Tribune*, writing from Alma, says of the mines of that vicinity that a rich strike of ore has been made on No. 7 in the old Phillips mine, that surpasses any thing yet struck in that famous property. It is an immense body of pyrites of iron, carrying 1½ to 3 ounces gold and 6 to 10 ounces silver and 2 to 10 per cent copper to the ton. It is now clearly demonstrated that this mine is a contact, with a fissure cutting up through it. The body of ore is now 25 feet deep, and the floor of the contact not yet reached.

The tunnel on the Ernest mine, near the Phillips, is nearing completion. When done, it will be able to put out 3 to 4 tons high-grade ore daily. It now has a pay-streak of 24 inches, principally black sulphurets and native silver. A large amount of ore is now on the dump and sacked ready for shipping.

A rich strike has been made in the Rock Island, near the Ernest. It shows two contacts of 12 to 16 inches, and a fissure of 4½ feet, with a pay-streak of 24 inches, mining from 15 to 2000 ounces of silver and ½ ounce of gold to the ton. There is a four-inch streak of black sulphurets and chloride of silver. The balance of the streak is carbonate of iron and lead. The main contact shows a pay-streak of about 8 inches of sulphurets, chloride, and carbonates in quality similar to the fissure.

The Fanny Barret has a large amount of ore in sight and ready to take out whenever the price of ore will justify.

A strike was made yesterday at the head of Buckskin by the Big Chief Consolidated Mining Company, showing a two-foot fissure, assaying 21 ounces silver and $^{3}/_{10}$ths of an ounce gold to the ton. Their find in the old town of Buckskin is looking well. It is a two-foot fissure, mining about $50 to the ton in gold and silver.

The Ernest, Rock Island, Northern Light, Fanny Barret, Tanner Boy, and Colorado Springs can alone run a twenty-five ton smelter. In this immediate neighborhood there are at least one hundred men at work on the mines and prospects. The reports from the blasts are heard every few minutes in the day. Work is vigorously prosecuted throughout.

SAN JUAN COUNTRY.

MAMMOTH.—The Lake City *Mining Register* says that the tunnel is 300 feet deep, and opening up for a new drift. In facing for this work, 40 sacks of ore were secured. The pay-streak is 4½ feet wide, and yields quartz bearing ruby silver.

MINERAL FARM.—The " Mineral Farm," situated about a mile from Ouray, is worked with profit. The Ouray *Muldoon* gives some particulars concerning this property which are of interest :

The property covers an area of 150 × 700 feet, 200 feet extending up and down the southwesterly slope of the mountain, which has a pitch of about 30 degrees and shows an outcrop of profitable ore 1600 feet long by 300 feet wide, and is formed by the intersection of twelve true fissures, with an east and west trend, and four large fissures, with a course nearly northeast and southwest, the point of junction being particularly well mineralized. The formation in which those two systems of true fissure occur is coniferous limestone of the Upper Helderberg group, Devonian age. The ore now extracted from those veins consists principally of galenite, tetrahedrite, buttermilk chloride, iodide and bromide of silver, with some little sulphide in plates lying between the cubes of galena; also, rotten sulphurets in pockets. The gangue is quartz, calc-spar, and sulphuret of baryta.

PALMETTO.—Says the *Mining Register :* An immense shaft 16½ × 6½ feet is sinking at the rate of a foot and a half a day. The depth to be reached is 800 feet, 20 of which have been made. The wagon-road is completed to within three fourths of a mile of the mine.

SAN JUAN & N. Y. M. AND S. CO.—The smelting-works of the San Juan & New York M. and S. Co. expect to start one or more of their roasters next week. They have purchased all the ore on the Aspen dump, and also 300 to 400 tons from E. B. Greenleaf from his Red Cloud mine, Mineral Mountain.

WHEEL OF FORTUNE.—The Ouray *Muldoon* says that Mr. W. Weston has let a hundred-foot contract on the A level, Wheel of Fortune, commencing from end of cross-cut run during the winter. This level is driving on the vein, and will probably soon run into the rich chute of ore which exists on the upper levels, and has already produced upward of $20,000.

SUMMIT COUNTY.

MONTEZUMA.—The Kokomo *Times* says that the Montezuma Company is running a steam drill with good success, having cut a number of lodes. Its mammoth tunnel, acknowledged the finest in the West, is now in nearly a hundred feet, and will soon strike the main body of ore. Already several strikes of note have been made, but a big bonanza, with every thing to indicate it, is the object of unceasing labor by candle-light.

RECONSTRUCTION.—The Reconstruction mine is developing steadily into a larger body of mineral. The development consists, besides the discovery-shaft, of a 90-foot tunnel, which shows a large body of quartz rock, carrying much high-grade galena and mixed with manganese and sulphurets. The whole breast of the tunnel is in mineral, and it is estimated that the whole body will measure about ten feet. It is high grade—running from fifty to one thousand dollars per ton, as shown by mill-runs. Having found the vein, it is the intention of the owners to follow it on an incline and thus open the mine out upon a larger body which

awaits them on this development. Six claims are included in the Reconstruction group, which will all be more or less developed. Arrangements have been made for sorting the ore and for its transportation to the smelting-works.

MAINE.

TWIN LEAD.—The official report of the superintendent of this company for the week ending June 27th says: During the past week, the cross-cut has been pushed south, passing through numerous feeders of copper ore. Last night, after blasting, I made an examination and found the full face in ore; there is no doubt that we are just entering the north side of the great ore-body. During the week, I have sorted about one hundred tons of ore that can be concentrated up to 10 per cent copper. Our present prospects are very flattering, and all goes well at the time.

A correspondent of the Daily *Mining News* of this city says that this company owns 500 linear feet of the great Douglass lode, and, as their lot has a lateral breadth from north to south of 2100 feet, it also owns all parallel veins which exist in the broad ore-bearing zone. It is known that two other well-mineralized veins do exist upon the property, the most important of which lies only a few rods to the south of the mother lode. This vein has been exposed at several points, and gives promise of being of great future value.

YOUNG HECLA.—The same correspondent says of this company: The Young Hecla is only a few hundred feet away from the Twin Lead shaft, and naturally the lithological surroundings are the same. The shaft is without shelter, and has reached the same depth as its sister mine. Work is progressing at the rate of a foot a day. In a conversation with Mr. W. F. Seavey, secretary of the company, he said: "We own about 500 feet on the Douglass vein. In our prospecting, Superintendent Duff speaks of six veins, and Mr. Coons, the surveyor, knows of eight, and believes there are eleven. These veins include lodes already developed on the properties of the Douglass, Blue Hill, Bisbee, and Favorite mines. The character of the mineral is copper sulphurets and a silver vein some six inches wide, and carries more or less gold, nickel, and lead."

SULLIVAN REGION.

The Sullivan *Bulletin* of July 3d has the following items:

MILTON.—The air-compressor is in place and the connections with boiler and both shafts completed. After the 4th inst., three Burleigh drills will be started, when some lively work may be looked for. Are now building ore-pier for shaft No. 1, which will be completed in a day or two. Shaft No. 1 is 150 feet deep. On account of the unusual hardness of the rock, the customary progress in sinking has been somewhat retarded this week. In shaft No. 2, owing to the probable near approach to the outer vein, the water has somewhat increased; the rock in both shafts is looking very well.

PINE TREE.—Work in the cross-cut from the 125-foot level is progressing as usual. The ore is improving both in quality and quantity.

SULLIVAN.—Making usual good progress in shaft No. 2, which is now down 120 feet. The battery-frame is erecting, and every thing is in readiness to receive the engine, which is expected to arrive here by next steamer. The heavy Blake crusher has been raised to the upper floor of the mill, and the drying, chloridizing, retorting, and melting furnaces are all under way. The large brick chimney, designed for all the works, is going up rapidly. All the machinery will be set up as soon as it arrives.

WAUKEAG.—The cross-cut has been widened to its full dimensions of five feet in the clear. A drift running east has been started on the vein, which produces ore of an excellent character, carrying native silver and black sulphurets of silver, of the same grade as that extracted from the Sullivan mine. This drift will be continued down to the Sullivan line, and connected with the lower level of the latter mine, which will afford a thorough ventilation of both mines, and greatly facilitate the extraction of ore.

MONTANA.

Recent issues of the Butte *Miner* contain notes as follows:

ALGONQUIN.—The mining properties at present developing by the Algonquin Company are three in number, and are known as the Algonquin, Salmon, and Cliff Extension. On the first, the shaft is down vertically 300 feet on a vein of ore which varies in width from one to six feet and runs northeast and southwest. The ore-body is opened up by seven levels, 50 feet apart, varying in length from 50 to 250 feet. The average daily output is 15 tons, which will be largely increased whenever stoping shall begin. Heretofore work has been mainly confined to running levels for the purpose of opening up the vein, no effort being made to test its productive capacity. The ore-product up to the present date has averaged about $90 per ton. The Salmon has been developed to a depth of 190 feet, the shaft running on an incline with the vein. At a depth of 54 feet, a level is in 30 feet each way from the shaft on a fine-looking vein of quartz, somewhat base in character. The shaft of the Cliff Extension has attained a depth of 90 feet. At 50 and 90 feet from the surface, levels were run, from which the ore has been stoped to the surface. The mine has produced in all about 900 tons of ore, assaying on an average 600 ounces per ton.

AURARIA.—In the main shaft, water was struck last week, necessitating a temporary suspension of work. Sinking was then resumed on the old shaft, several hundred feet east on the same ground, but probably not on the same ledge. The shaft is 45 feet deep, and is following a 15-inch vein of rather high-grade ore, a bucket sample on Friday assaying 140 ounces. About 20 tons of ore are on the dump; and unless water soon intrudes its unwelcome presence, active sinking will continue as the quality and size of the vein improve with depth.

BELL.—About five months ago, this mine was bonded for $100,000, and the bond having expired on the 29th ult., the property was purchased by the bondee, Mr. T. C. Meader, of the Montana Copper Mining Company, and the first payment of $25,000 made. The lower east level of the mine is being pushed ahead on the hanging-wall side of the ledge, and is now distant from the shaft about 20 feet. The ore-product remains unchanged in character, assaying high in silver and containing a high percentage of copper.

LEXINGTON.—The daily output continues at about 15 tons, being regulated by the stamp capacity of the Lexington mill. The bulk of the ore is extracted from the east level. The main shaft, to be sunk to a depth of 500 feet from a point some distance south of the present working-shaft, will be begun about the 1st of July, and for the first hundred feet will be sunk with a whim, which is now in course of construction.

STAR WEST.—The drifts continue to yield some rich ore, but sinking in the shaft has been delayed pending the erection of a whim upon which the carpenters are busy. About 500 feet east of the main shaft, an incline has been started on the vein. It is down 35 feet, following an 18-inch streak of base ore which assays from 100 to 150 ounces per ton.

NEVADA.

THE COMSTOCK LODE.

The Gold Hill *Daily News* thus reviews the situation on the Comstock for the week ending June 30th:

During the past week, two important connections have been made.

The connection between the Bullion mine and the Ward shaft was made last Monday, and has already proved of such benefit, by reducing the temperature, that the same amount of work is now being done with a smaller number of miners. Hereafter, the Bullion mine will be worked through the Ward shaft.

The connection made between the Belcher, Crown Point, and Yellow Jacket mines, will prove of special benefit to the Belcher. The temperature on the lower levels of this mine has been so intense during the past three months as to interfere materially with the operations.

The old bonanza mines are turning out their usual amount of milling-ore.

The ore struck in the Hale & Norcross is yielding handsomely, considering the fact that so little is said or thought about it.

BRISTOL ITEMS.

The Pioche *Record* has the following: The Mendha, of the Hillside Company, is now shipping to the furnace 32 tons of ore per day, the number of teams hauling being increased to thirteen, and capable of bringing in enough ore to keep the furnace in steady operation for some time to come. The Hillside has been improving the past few days, especially on the 5th level east, 386 feet from the incline, where a large body of heavy lead ore has been encountered, which is looking very promising. We understand that operations will be renewed on the Mayflower mine, of the Bristol Silver Mining Company, the coming week. Work has again been resumed in sinking the artesian well at the mill-site, the drill having been extracted last Wednesday. The furnace is running well. Ore has been scarce on the dump, but is now coming in fast. Two large kilns of Raymond & Ely black ore have been fired.

NEW HAMPSHIRE.

The Boston *Daily Advertiser* says: The Silver Lake Mining Company is organized under the laws of the State of New York, with a capital of $1,000,000, in 100,000 shares of the par value of $10. The officers are as follows: William Murdoch, President; E. D. Goodrich, Vice-President; David L. Dodge, Treasurer; E. H. Hastings, Secretary; Charles S. Lincoln, Solicitor. Trustees—William Murdoch, E. D. Goodrich, David L. Dodge, Charles S. Lincoln, D. P. Bodfish. The property of the company consists of fifty acres of mineral land, situated near Silver Lake, New Hampshire, two miles from Madison, on the North Conway branch of the Eastern Railroad. A year has been spent in developing the property, resulting in the opening of a great lode of argentiferous galena and zinc-blende to a depth of over 100 feet, and by drift 60 feet in solid ore, and by surface excavations several hundred feet. Expert reports will shortly be given, showing by actual measurement that there are from 10,000 to 15,000 tons of ore on the dump and a clearly-defined ledge of immense width laid bare, from which, with even present limited facilities, 100 tons per day can easily be extracted. It has passed its prospecting stage, and may now be classed with the producing mines of the country. Messrs. A. J. Ware & Co., 292 Washington street, Boston, are the financial agents of the company, and will furnish all required information.

PROPOSALS.

For the benefit of many of our readers, we compile weekly such proposals and solicitations for contracts, etc., as may be of interest. The table indicates the character of proposals wanted, the full name and address of parties soliciting, and the latest date at which they will be received:

For Coal for the Use of Revenue Vessels; E. A. Merrit, Custom-House, Collector's Office, New York City	July 10, 1880.
For Refuse Spelter, Zinc, Cast-Iron, etc., stored in the Memorial Building, Fairmount Park; Russell Thayer, Secretary, Office of Superintendent, Philadelphia, Pa	" 12, "
For Graduation and Masonry on the Richmond & Alleghany RR.; Chief-Engineer's Office, No. 1104 Main street, Richmond, Va	" 12, "
For 15,000 Yards of the Best American Fine Frame Body Brussels Carpet, and 12,000 Yards of the Best American Carpet Lining; F. K. Upton, Assistant Secretary Treasury Department, Washington, D. C	" 12, "
For Furnishing Water for Fire-Hydrants for Public Purposes, and Constructing Water-Works; F. F. McCartney, City Clerk, Omaha, Neb	" 12, "
For Making and Erecting Three Wrought-Iron Steel Bridges; W. A. Roebling, Chief-Engineer, No. 21 Water street, Brooklyn	" 12, "
For Furnishing and Delivering about 250,000 Granite Paving-Blocks; W. A. Roebling, Chief-Engineer, No. 21 Water street, Brooklyn	" 12, "
For Ship Chandlery; John Sherman, Treasury Department, Office of the Secretary, Washington, D. C	" 12, "
For an Iron Superstructure for a Bridge; Office of Commissioners of Venango Co., Franklin, Pa	" 13, "
For Encaustic Floor-Tiles; James W. Eaton, Superintendent New Capitol, Albany, N. Y	" 14, "
For the Construction of a New Union Passenger Station at Greenfield; H. W. Hartwell, Architect, 10 Post-Office Square, Boston	" 15, "
For Laying Asphaltum Pavements, and Re-surfacing Bituminous Pavements; W. J. Twining, Engineer's Department District of Columbia, Washington, D. C	" 15, "
For the Construction of Life-Saving Stations; Treasury Department, United States Saving Service, Office of the General Superintendent, Washington, D. C	" 17, "
For the Improvement of the Harbor at Charleston, S. C.; Q. A. Gillmore, United States Engineer's Office, Army Building, New York City	" 19, "
For Building a Superstructure for a Bridge across the Zumbro River; City Recorder, Rochester, Minn	" 19, "
For Pumping-Engine and Boiler; Office of the Board of Water Commissioners, Yonkers, N. Y	" 19, "
For Military Supplies; Depot Quartermaster's Office, 1139 Girard street, Philadelphia, Pa	" 20, "
For the Improvement and Enlargement of the Water-Works of the City of Allentown; Edwin G. Martin, Mayor, Allentown, Lehigh County, Pa	" 20, "
For Furniture for the Executive Chamber, etc.; James W. Eaton, Superintendent New Capitol, Albany, N. Y	" 22, "
For Carving the Wood-Work of the Ceiling of the Senate Chamber; James W. Eaton, Superintendent New Capitol, Albany, N. Y	" 22, "
For Gas Fixtures for the Executive Chamber, etc.; James W. Eaton, Superintendent New Capitol, Albany, N. Y	" 22, "
For Building Two Side-Wheel Steamers; John Rodgers, Office of the Light-House Board, Washington, D. C	" 22, "
For Printed Wooden Tags and Cord Clamps for Tie Mail Sacks; D. M. Key, Postmaster-General, Washington, D. C	" 27, "
For Lighting the City of Guayaquil; R. & C. Degner, No. 50 Wall street, New York City	" 31, "
For Veterinary Instruments, etc.; Depot Quartermaster's Office, Houston, corner of Greene street, New York City	" 31, "
For Competitive Designs for the Provincial Parliament and Departmental Buildings; Department of Public Works, Toronto, Ontario	August 1, "
For the Construction of a Hospital; Alexander J. Perry, Office of the Chief Quartermaster, Department of the East, Governor's Island, New York Harbor	" 7, "
For Fire-Engines; Den Burgermeisteramt, Colmar, Germany	Sept. 5, "
For a System of Water-Supply; T. P. Newell, City Clerk's Office, Joplin, Mo.	

See advertisement in another column.

ASSAY DEPARTMENT OF THE ENGINEERING AND MINING JOURNAL.

This department is opened for the benefit of miners, prospectors, and others interested in minerals.

Replies will be made in these columns, and *without charge*, to questions asked regarding the nature and commercial value of minerals, and of samples sent.

Assays determining the actual composition and value of ores will be made at the following rates. All assays are made with the utmost care by the most experienced and competent assayers:

Assay for gold	$3.50	Assay for copper	$3.00	Assay for iron	$4.00
" silver	3.00	" lead (wet)	3 00	" nickel and	
" gold and silver	5.00	" zinc	5.00	cobalt	10.00

The amount should invariably accompany the order, and expressage or postage must always be prepaid.

Communications, samples, etc., to be addressed to

ENGINEERING AND MINING JOURNAL, 27 Park Place, New York (P.O. Box 4404).

FINANCIAL.

Gold and Silver Stocks.

NEW YORK, Friday Evening, July 9.

July 5th being a holiday, no business was transacted at the Exchanges. The 3d and 6th were practically half-holidays, and but very little business was done. Since then, the market has been both dull and weak, as a rule. The depression in mining stocks appears to result from a lack of knowledge on the part of the public as to the actual condition of the mines, and a suspicion that things are going wrong on all sides. The continuation of the decline in Chrysolite to-day left the market in a demoralized condition at the close.

The Comstock shares have received much less attention than of late. The old bonanzas, however, show a little strength, owing to a dividend having been declared by the Consolidated Virginia. California records 625 shares at $2@$2.10. The dealings in Consolidated Virginia aggregate 3690 shares at $3.40 @$3.60. The sales of Consolidated Imperial amount to but 300 shares at 23@25c.

The Bodie stocks have been unusually quiet but fairly steady. The sales of Bodie amount to but 50 shares at $5.75. Standard continues quiet, with sales of but 710 shares at $27¾@$26. Bechtel only records 100 shares at $1.30. Bulwer continues quiet, but has grown stronger, with sales of 295 shares at $2.90@ $3.15. Goodshaw, with a moderate business, has been firm, the sales amounting to 3000 shares at $1.40 @$1.55. South Bodie, although quiet, has continued in its downward course. The sales aggregate 900 shares at 18@12c. South Bulwer records 500 shares at 85@75c. May Belle has been steady, with sales of 1400 shares at 36@34c.

The Tuscarora stocks have been very quiet, and without feature. Belle Isle records sales of 460 shares at 40@55c. The dealings in Grand Prize amount to but 50 shares, at $1. The sales of Independence aggregate 300 shares, at 50c. Tuscarora, with a moderate business, has been weak, the sales aggregating 2500 shares at 10@8c.

The miscellaneous San Francisco stocks have been very quiet, and without feature. The sales of Eureka amount to but 105 shares, at $17@$17¾, and of Tip Top, 193 shares at $6½.

The dealings in the stocks on the regular lists of the New York Stock Exchange and the New York Mining Stock Exchange have been as follows: Amie has been quite active, and shows a little strength. The sales amount to 45,400 shares at 73@90c. Chrysolite has been the feature of the market for the week. The sales have been very large and the price quite weak. There is no news from the mine that should act with a depressing effect upon the stock. It is said, however, that a large block of stock held by a banking house, has been hanging over the market, and the feeling that this might at any time be forced for sale has had a very depressing influence. The sales aggregate 19,905 shares at $14⅛@$11¼. Climax has had a moderate business at fairly steady prices, the sales amounting to 6850 shares at $2.40@$2.55. Deadwood only records 135 shares, declining from $16⅞@$12. The sales of Excelsior amount to but 50 shares at $17. Great Eastern has been somewhat quiet and weak, the sales aggregating 10,000 shares at 62@57c. Green Mountain has been quiet but steady, with sales of 420 shares at $3.10@$3.05. Homestake only records 200 shares at $35½@$35. Horn-Silver has been quiet at $17½@$17, with sales of 225 shares. Hukill has been quiet and weak, the sales aggregating 7600 shares at $1.75@$1.50. Leadville has continued to decline, and has been quiet. The sales amount to 1550 shares at 83c.@70c. Little Chief has had a fair business at declining prices, the sales amounting to 9517 shares at $8¾@ $7.13. Little Pittsburg, with a moderate business, has been fairly maintained. The sales amount to 1380 shares at $6½@$5¾@$6¼. Moose has continued to decline, under a liberal business, the sales amounting to 15,200 shares at 80@65c. Plumas has been very quiet but steady, with sales of 200 shares at $2.05@$2. Calaveras has been quiet and steady, with sales of 3300 shares at 55@52c. Durango records a good business at strong prices, the sales amounting to 12,800 shares at 45@64c. The Quicksilver stocks have been quiet. The business in Preferred amounts to 650 shares at $55@$57, while in Common there have been no transactions. Rappahannock has been quite a feature in the market, advancing from 31@40@38c., with sales of 11,300 shares. The reports from this mine are of a very favorable character. Silver Cliff has been quiet but stronger, the sales amounting to 1375 shares at $4@ $4.55. South Hite has been quiet and steady with sales of 1500 shares at $1.45@$1.55. Sutro Tunnel has been very quiet and fairly steady, the sales amounting to but 3700 shares at $2@$1⅞.

The dealings in the fancies have been as follows: Buckeye, 24,300 shares at 34@31c.; Gold Placer, 3450 shares at 63@60c.; Lacrosse, 2200 shares at 31@28c.; Lucerne, 700 shares at 13c.

The dealings at the American Mining Stock Exchange differ in character but little from the transactions of several weeks past, and have been as follows:

AMERICAN MINING STOCK EXCHANGE.

Stocks.	Opening.	Highest.	Lowest.	Final.	Sales—shares.
Amie	.80	.85	.75	.85	5,700
Auburn & Rock Creek	1.15	1.20	1.15	1.20	6,900
Battle Creek	4.75	4.75	4.50	4.50	7,700
Barbee & Walker	5.50	5.75	5.12½	5.75	8,500
Best & Belcher	7.87½	9.00	7.87½	9.00	400
Bodie	6.25	6.25	5.20	5.20	100
Boston	1.00	1.00	.....	1.00	200
Bulwer	2.90	2.90	.....	2.90	300
By and By	.....	.....	.....	.....	.....
California	2.05	2.15	2.05	2.15	300
Con. Pacific	.....	.....	.....	.....	.....
Con. Virginia	3.40	3.60	3.40	3.45	2,600
Climax	2.50	2.70	2.40	2.50	3,100
Columbia	4.37½	4.50	4.00	4.00	1,022
Cosette	.....	.....	.....	.....	.....
Crowell	.....	.....	.....	.....	.....
Chrysolite	13.87½	14.00	12.00	12.00	1,300
Durango	.45	.60	.45	.60	8,600
Glynn Dale	.40	.45	.40	.45	300
Hukill	.....	.....	.....	.....	.....
Iron-Silver	.....	.....	.....	.....	.....
Leadville	.....	.....	.....	.....	.....
Little Chief	8.00	8.00	7.50	7.50	400
Mexican	7.75	9.00	7.75	9.00	490
Mayflower	1.00	1.00	.80	.80	2,100
Mineral Creek	.....	.....	.....	.....	.....
Ophir	.....	.....	.....	.....	.....
Silver Nugget	1.60	1.70	1.55	1.60	24,540
Standby	4.57	4.75	4.50	4.50	200
Standard	.....	.....	.....	.....	.....
Sutro Tunnel	1.80	1.85	1.80	1.80	400
South Bulwer	.....	.....	.....	.....	.....
Sierra Nevada	12.00	12.00	.....	12.00	50
Tombstone	.....	.....	.....	.....	.....
Vandewater	.60	.70	.60	.70	300
Union Con	20.25	20.25	.....	20.25	170
Total sales					75,722

At a meeting of the directors of the Ore Smelting and Refinery Company yesterday, George D. Roberts was elected President, Jay Hubbell, of Michigan, Vice-President, and D. H. Verdenal, Secretary. The company will begin operations at once.

OFFICIAL LETTERS.

Auburn & Rock Creek.—The managers have given orders for a 20-stamp mill to be put up as soon as possible. The mine has a fine showing of ore that will mill $28, and can crush 40 tons a day. This ought to put them in a condition to pay 25 cents a share a month.

Aldenda.—A dispatch from Bodie, Cal., says the Aldenda prospects are good for cutting the ore-body on the 500-foot level in a few days. The Summit Company has cut a 15-foot ledge of ore running from $20 to $100 per ton.

Amie.—This company shipped on the 4th twelve tons first-class ore, valued at $1200, and thirty-two second-class on Monday, valued at $300. The mine is looking well. The new engine was started on Monday, and an increased output is promised.

Bassick.—This mine still has good ore in the shaft 40 feet below the 200-foot level. This is 240 feet below the tunnel, or 405 feet below the surface.

Bonanza Chief.—The tunnel in this mine is in 390 feet, with a fine ledge of ore in the face. The open cut above the tunnel supplies more ore than the 20-stamp mill can handle. It is the intention to arrange soon for additional stamps.

Barbee & Walker.—The superintendent, under date of the 24th ult., reports the mine looking well in all the various levels and stopes, especially in the south 200 level, near the air-shaft. This level was being driven south, and the ore was very good, increasing steadily in width. The mill was running smoothly, and it was expected that the bullion output for the month of June would be about the same as that for May ($25,000.) The president states that the company will declare its usual dividend of $10,000 for July, and will carry over a surplus sufficient to pay two dividends. Professor Maynard having reported to the trustees that the hoisting-works, as well as the ore-reserves, were amply sufficient to supply five more stamps without unnecessarily straining the mine or neglecting its proper development, the board has concluded to rent a mill which is now idle at Silver Reef.

Bull-Domingo.—This mine is working a full force of men and taking out a large quantity of very valuable ore.

Colorado Prince.—A telegram from the general manager, dated the 7th inst., says: New strike looks well; ore very rich in gold, silver and lead, samples assaying 5 to 15 ounces gold, and 50 ounces silver, per ton.

Grand Cañon Coal Co.—The superintendent telegraphs, under date of the 7th, inst. as follows:

The A. T. Railroad Company has made a final survey of the road to our coal openings. The road will soon be here. In order to be prepared for the delivery of coal (the market demanding from us from 1000 to 1500 tons daily), I have doubled the force of men driving the main west and north entries. The immense coal demand, with an assured outlet, demands most extensive operations immediately, in order that we may be prepared to meet the demand on completion of the track. In our boring for water, at the depth of 450 feet we struck strong salt water. Every thing is in the best possible condition at the works.

Green Mountain.—A telegram from the superintendent says: The last drift in No. 4 tunnel shows increased width with good quality of ore. The general appearance of the mine is excellent. The old mill is running steadily, and the machinery for the new sixty-stamp mill is on the ground.

Lowland Chief.—The general manager, under date of the 28th ult., writes: Since my report of the 21st inst., we have cut out and retimbered 52½ feet of our shaft, the work being now completed to a depth of 98 feet. We hope to have the shaft finished down to the lower drift by the date of next report, and we will then have the best shaft on the hill, and one from which our work of development can be cheaply and expeditiously carried on. This shaft will hereafter be known as the Dorsey shaft. Our surface improvements are in excellent shape, and the machinery works finely. I desire to thank our stockholders and trustees for the patience displayed by them during the time we have been overhauling the mine. The work was an absolute necessity, and the good results from it you will soon see.

Little Pittsburg.—This is now producing 30 to 40 tons, and assays 30 ounces to the ton.

Little Chief.—The superintendent's report of June 28th, from this mine, fully covers the operations of the company. We make the following extracts:

"The general appearance of the various ore-faces in the mine is not so favorable as at the date of my last report, and to keep our ore-shipments, we have been compelled to stope more ground than usual. The ore-shipments for June, up to 27th, aggregate 2217 tons, the yield, net, being something more than $114,000, or an average net yield of $51.50 per ton. This is the highest average ever made from the mine. The ground in the No. 3 workings in the stopes is crushing badly, and requires the constant attention of a large gang of timbermen to hold it up. It has given us great trouble during the past week, and consequently our ore-shipments have been smaller than usual. The total number of feet run in the various drifts, upraises, shafts, and winzes, during the past week, is 324½. The number of men employed in all capacities, top and bottom, is something more than 400."

Sacramento Mine.—The superintendent of this mine writes, under date of the 2d instance, as follows: During the week ending June 26th we employed 86 miners, 21 carmen, 4 skipmen, 3 tramwaymen, 3 station-tenders, 2 watchmen, 3 firemen, 3 blacksmith help, 6 laborers, 1 woodman, and 1 timekeeper, at $4; 2 shift bosses, 7 engineers, 3 blacksmiths, 3 carpenters, and 2 pumpmen, at $5; 7 ore-sorters, and 2 woodmen, at $3.50; 1 chief-engineer, 1 carpenter, and 1 blacksmith, at $6; 9 shaft miners at $4.25, and 4 at $5 per day; 1 foreman at $250, and 1 clerk at $150 per month. We extracted and shipped to the mills 1005 tons of ore from the 300, 400, 450, and 550 levels. The average pulp-assay for the week is $45.50. The amount of crude bullion received, 5042 ounces, and the amount shipped to the company, $47,327.21. The new shaft has been sunk during the past week 12 feet, making a total depth of 824 feet, with no change to note in the character of the formation passed through.

Palmetto Mine.—This company is located on the

GENERAL MINING STOCKS.

Dividend Paying Mines.

Name and Location of Company.		Feet on Vein.	Capital Stock.	Shares. No.	Par Val	Assessments. Total levied to date.	Date and amount per share of last.			Dividends. Total paid to date.	Last Dividend.			July 3. H.	July 3. L.	July 5. H.	July 5. L.	July 6. H.	July 6. L.	July 7. H.	July 7. L.	July 8. H.	July 8. L.	July 9. H.	July 9. L.	Sales.
Amie Con. s. l.	Col.		5,000,000	500,000	10					305,000	May.	1880	10	80	73			80	75	85	80	87	88	90	84	45,4 0
Argenta, s.	Nev.	1,500	10,000,000	100,000	100	100,000	Apr.	1880	25	40,000	Feb.	1880	20													
Barbee & Walker	Ut'h		1,000,000	100,000	10					10,000	June	1880	10													
Bassick, g. s.	Col.		10,000,000	100,000	100					25,000	Feb.	1880	25													
Belle Isle, s.	Nev.	1,500	10,000,000	100,000	100	30,000	Feb.	1880	30	300,000	Dec.	1879	25					45		50	40	55				460
Belcher, g. s.	Nev.	1,040	10,400,000	104,000	100	1,912,800	Feb.	1880	1 00	15,397,200	Apr.	1876	1 00													
Bobtail, g.	Col.	2,500	1,136,630	227,326	5	*				125,030	Sept.	1879	15													
Bobtail Tunnel, g.	Col.		100,000	20,000	5	52,000	July	1873	0 30	56,000	Dec.	1878	40													
Bodie, g.	Cal.		10,000,000	100,000	100	75,000	May.	1879	1 00	1,200,000	Mar.	1880	25									5.75				50
Breece Hill, s. l.	Col.		5,000,000	200,000	25					2,000	Feb.	1880														
Briggs Con., g.	Col.		2,000,000	200,000	10					8,000	Dec.	1879	04													
California, g. s.	Nev.	600	54,000,000	540,000	100					31,320,000	Dec.	1879	50					2.00		2.05		2.10	2.05	2.05	2.00	625
Caribou Con., g.	Col.	1,400	1,000,000	100,000	10					50,000	Mar	1880	10													
Chollar, g. s.	Nev.	700	11,100,000	112,000	100	168,000	Mar.	1880	0 50	3,080,000	Feb.	1872	1 00													
Chrysolite, s. l.	Col.		10,000,000	200,000	50					1,100,000	Apr.	1880	50	*	13			13.75	12.25	13.13	12	13	12.38	12½	11¼	19,905
Climax, s. l.	Col.		2,000,000	200,000	10	*				120,000	May.	1880	30	2.50	2.45			2.50	2.40	2.45	2.40	2.50	2.45	2.55	2.30	6,850
Cons. Virginia, g. s.	Nev.	710	54,000,000	540,000	100	474,600	June	1873	3 00	42,390,000	Dec.	1879	50	3.50	3.40			3.60	3.40	3.50	3.45	3.60	3.55	3.60	3.40	3,690
Confidence, g. s.	Nev.	130	2,496,000	24,960	100	256,320	Apr.	1878	0 50	78,000	May.	1865	8⅓													
Crown Point, g. s.	Nev.	600	10,000,000	100,000	100	2,373,370	May.	1880	0 50	11,588,000	Jan.	1875	2 00													
Deadwood, g.	Dak	1,500	10,000,000	100,000	100					150,000	June	1880	25					16⅞		12						135
Eureka Cons., g. s. l.	Nev.		5,000,000	50,000	100	100,000	May.	1876	1 00	4,155,000	June	1880	50					17						17¾		105
Excelsior W't'r & M. Co	Cal.	525 acres	10,000,000	100,000	100					800,000	July.	1880	25									17				50
Father de Smet, g.	Dak		10,000,000	100,000	100					210,000	June	1880	30													
Findley, g.	Geo.		200,000	200,000	1					8,000	May.	1879	1c													
Freeland	Col.		5,000,000	200,000	25					50,000	May.	1880	25													
Gould & Curry, g. s.	Nev.	612	10,800,000	108,000	100	3,152,000	Feb.	1880	1 00	3,826,800	Oct.	1870	10 00													
Grand Prize, s.	Nev.	1,500	10,000,000	100,000	100	220,000	Dec.	1879	0 75	400,000	Feb.	1878	1 00									1.00				50
Great Eastern, g.	Dak	1,200	300,000	300,000	1					16,000	July.	1879	02	62				62	61	61		62	58	57		10,000
Green Mountain, g.	Cal.	4,350	1,250,000	125,000	10					75,000	June	1880	05					3.10	3.05	3.05						420
Hale & Norcross, g. s.	Nev.	400	11,200,000	112,000	100	3,506,000	May.	1880	50	1,598,000	Apr.	1871	5 00													
Homestake, g.	Dak		10,000,000	100,000	100	200,000	Apr.	1878	1 00	540,000	June	1880	30							35½				35		2 0
Horn-Silver, s. l.	Uth.		10,000,000	400,000	25					200,000	Jan.	1880	25					17.25	17.13	17.50	17			17.25		225
Hukill, g. s.	Col.	3,288	1,000,000	200,000	5	*				210,000	Dec.	1878	10	1.70	1.65			1.75	1.60	1.55	1.50	1.55	1.50	1.60	1.50	7,500
Independence, s.	Nev.	1,500	10,000,000	100,000	100	135,000	Apr.	1880	0 25	225,000	Sept.	1879	25									50				300
Kentuck, g. s.	Nev.	95	3,000,000	30,000	100	300,000	Aug.	1878	1 00	1,252,000	Mar.	1870	5 00													
La Plata, s.	Col.		2,000,000	200,000	10					195,000	July	1880	7½													
Leadville, s.	Col.		2,000,000	200,000	10	*				150,000	Jan.	1880	15	83	80			80	75	73	70			70		1,550
Leeds, s.	Uth.	3,000	6,000,000	60,000	100	6,000	Feb.	1880	10	78,000	Oct.	1878	15													
Leopard, l. g. s.	Nev.	1,500	5,000,000	50,000	100	347,500	Apr.	1880	10	162,500	Dec.	1876	50													
Little Chief, s. l.	Col.		10,000,000	200,000	50					500,000	June	1880	50	8¾	8.00			8.25	7.75	8.13	7.63	8.13	7.75	7.75	7.13	9,517
Little Pittsburg, s. l.	Col.	30 acres.	20,000,000	200,000	100					1,350,000	Mar.	1880	50	6½	6⅛			6½	6.00	6⅜	5¾	6.00		6.25	6.00	1,380
Manhattan, s.	Nev.	129,810		50,000		150,000	July.	1879	1 00	400,000	Feb.	1877	1 00													
Martin White, s.	Nev.	22,900	10,000,000	100,000	100	700,000	Mar.	1880	50	140,000	July.	1879	50													
Merrimac, s.	Mas.	1,500	500,000	100,000	5	*				120,000	Mar.															
Moose, s.	Col.	39,000	2,000,000	200,000	10	*				550,000	Mar.	1878	25	80	76			78	73	75	73	75	72	72	65	15,200
N. Y. & Colorado, g.	Col.		1,000,000	50,000	20	*				25,000	July.	1879	10													
Northern Belle, s.	Nev.	1,600	5,000,000	50,000	100					1,550,000	June	1880	50													
Ontario, s	Uth.	3,000	10,000,000	100,000	100					2,800,000	June	1880	50													
Ophir, g. s.	Nev.	675	10,080,000	100,800	100	2,745,400	Apr.	1880	1 50	1,603,200	Jan.	1880	1 00													
Ore Knob, c.	N. C.	1,600 acs.	1,500,000	150,000	10	*				135,500	Mar.	1880	25													
Potosi, g. s	Nev	700	11,000,000	112,000	100	168,000	Mar.	1880	0 50																	
Plumas, g.	Cal.		1,000,000	100,000	10	715,000				151,000	July	1879	8					2.05				2.00				200
Raymond & Ely, g. s.	Nev.	5,000	12,000,000	120,000	100		June	1880	15	3,075,000	Sept.	1873	3 00													
Richmond, s.	Nev.		1,350,000	54,000	25	660,000				2,315,830	May.	1880	1 87													
Robinson Cons.	Col.		10,000,000	200,000	50					75,000	June	1880	37½													
Rye Patch Cons.	Nev.	1,600	3,000,000	30,000	100	157,500	Dec.	1878	1 00	105,000	Dec.	1877	25													
St. Joseph, l.	Mo.	2,000 acs.	1,000,000	100,000	10					250,000																
Stormont, s.	Uth.		150,000	150,000	1					45,000	Feb.	1880	30													
Savage, g. s.	Nev.	800	11,200,000	112,000	100	4,852,000	Apr.	1880	1 00	4,460,000	June	1869	3 00													
Sierra Nevada, g. s.	Nev.	3,650	10,000,000	100,000	100	3,950,000	Apr.	1880	1 00	102,000	Jan.	1871	1 00													
Silver King, s.	Ariz	1,500	10,000,000	100,000	100					450,000	Nov.	1878	50													
Standard, s.	Cal.		10,000,000	100,000	100	50,000	July	1878	1 00	1,850,000	June	1880	75	27¾	27			27¾		27	26¾	26				710
Tombstone, s.	Ariz		5,000,000	500,000	10					150,000	June	1880	10													
Yellow Jacket, g. s.	Nev.	1,200	12,000,000	120,000	100	3,738,000	May.	1880	1 00	2,184,000	Aug.	1871	2 50													

Non-Dividend Mines.

Name and Location of Company.		Feet on Vein.	Capital Stock.	Shares. No.	Par Val	Assessments. Total levied to date.	Date and amount per share of last.			Dividends. Total paid to date.	Last Dividend.			July 3. H.	July 3. L.	July 5. H.	July 5. L.	July 6. H.	July 6. L.	July 7. H.	July 7. L.	July 8. H.	July 8. L.	July 9. H.	July 9. L.	Sales.
Alpha, g. s.	Nev.	306	3,000,000	30,000	100	330,000	May.	1880	1 00																	
Alta	Nev.	600	10,800,000	108,000	100	1,209,000	Apr.	1880	0 50																	
Am. Flag, g.	Col	5,300	1,250,000	125,000	10	*																				
Andes	Nev.	2,000	500,000	100,000		465,000	Jan.	1880	0 25																	
Baltimore Cons.	Nev.	1,050		84,000		1,015,000	Apr.	1878	0 50																	
Benton	Nev.	600		108,000		91,800	Sept	1879	0 50																	
Bechtel, g.	Cal.			69,000		113,250	Jan.	1880	0 25											1.30						100
Belvidere, g.	Cal.	1,500		60,000		78,000	Mar.	1880	0 50																	
Bertha & Edith, g.	Vir.	645 acs.	500,000	500,000	1	*																				
Best & Belcher, g. s.	Nev.	545	10,080,000	100,800	100	942,590	Feb.	1880	1 00																	
Buckeye	Col.		2,000,000	400,000	5	*								31c				32c	31c	34c	31c	33c	32c	32c	31c	21,300
Bullion, g. s.	Nev.	943½	10,000,000	100,000	100	3,352,000	Mar	1880	1 00																	
Bulwer, g.	Cal.		10,000,000	100,000	100	30,000	Dec.	1877	50					3.00	2.95							2.90		3.15	3.00	295
Calaveras, g.	Cal.	2,200 acrs	500,000	500,000	1									55c	52c			53c		54c		54c		54c	53c	3,200
Cal., B. H., g.	Dak.		10,000,000	100,000	100	275,000	Apr.	1880	0 50															2.25		100
Caledonia	Nev.	2,188	10,000,000	100,000	100	1,935,900	May.	1880	0 50																	
Cashier	Col.		500,000	250,000	2	*																				
Central Arizona, s.	Ariz		10,000,000	100,000	100																					
Challenge	Nev.	90	5,000,000	50,000	100	10,000	Nov.	1878	0 20																	
Cleveland, g	Col.	3,715	250,000	25,000	10	*																				
Cons. Imperial, g. s.	Nev.	468	50,000,000	500,000	100	1,225,009	May.	1880	0 10					24c						23c				25c		300
Con. Pacific, g.	Cal.	1,400	600,000	60,000	100	60,000	Apr.	1880	1 00																	
Dahlonega, g.	Ga.		250,000	250,000	1	*																9c		8c	7c	6,000
Day	Nev.	1,500	10,000,000	100,000	100	75,000	Mar.	1880	0 15																	
Dayton	Nev.	1,600	10,000,000	100,000	100	750,000	Apr.	1878	0 25																	
De Frees	Ariz	1,500	10,000,000	100,000	100	140,000	May.	1879	15																	
Durango														50c	45c			52c		57c	54c	60c	55c	64c	58c	12,8 0
Exchequer, g. s.	Nev.	400	10,000,000	100,000	100	530,000	Feb.	1880	0 50																	
Gold Placer, g.	Col.		5,000,000	200,000	25	*								63c	60c					62c	60c	63c	61c	60c		3,450
Goodshaw, g.	Cal.		10,000,000	100,000	100	105,000	Apr.	1880	0 25					1.50	1.40			1.55	1.46	1.55	1.40	1.50		1.40		3,000
Granville, g.	N. C.	1,231 acs.	300,000	300,000	1	*								13c								13c	12c	12c	10c	3,500
Hillside, s.	Nev.	5,000	10,000,000	100,000	100	110,000	Apr.	1880	0 30																	
Hussey	Nev.	4,500	10,000,000	100,000	100	125,000	Aug.	1879	0 15																	
Julia, g. s.	Nev.	3,000	11,000,000	110,000	100	1,239,500	May.	1880	0 40																	
Justice, g. s.	Nev.	2,000	10,500,000	105,000	100	3,154,000	May.	1880	0 50																	
King's Mountain, g.	N. C.		1,200,000	120,000	10	*																				
Kossuth	Nev.	2,700	10,700,000	108,000	100	421,200	Aug.	1877	0 15																	
Lacrosse	Col.	3,900	1,000,000	100,000	10	*								30c						30c		31c	20c	28c		2,200
Leviathan	Nev.	2,000	10,000,000	100,000	100	310,000	Mar.	1880	25																	
Lucerne	Col.	4,200	5,000,000	500,000	10	*												13c				13c				700
Mariposa preferred	Cal.	14,387	5,000,000	50,000	100	1,425,000	June	1877	1 00																	
" common	Cal.	acres.	10,000,000	100,000	100	1,425,000	June	1878	1 00																	
May Belle, g.	Cal.	1,500	10,000,000	100,000	100	36,000	Jan.	1880	0 15									36c	35c			35c		35c	34c	1,400
McClinton, g.	Cal.	1,000	6,000,000	60,000	100	105,000	June	1880	0 25																	
McCracken	Ariz	4,500	10,000,000	100,000	100	100,000	Sept.	1879	0 25																	
Mexican, g. s.	Nev.	600	10,080,000	100,800	100	1,236,200	Apr.	1880	1 00																	
Mono, g.	Cal.	750	5,000,000	50,000	100	175,000	Mar.	1880	1 00																	
Navajo	Nev.	,500	10,000,000	100,000	100	155,000	Mar.	1880	0 10																	
New York	Nev.	1,000	10,000,000	100,000	100	885,000	Feb.	1880	0 05																	
Nth. Standard, g.	Cal.																									
Orig. Keystone	Nev.	1,500	10,000,000	100,000	100	175,000	May.	1880	0 50																	
Overman, g. s.	Nev.	1,200	3,840,000	38,400	100	3,519,480	June	1880	0 50																	
Quicksilver preferred	Cal.	8,500	4,291,300	42,915	100	*								55½	55			55¾	55	57	56					650
" common	Cal.	acres.	5,708,700	57,087	100	*																				
Rappahannock, g.	Va.	345 acres	250,000	250,000	1	*												35c	31c	40c	35c	37c	35c	38c	37c	11,300
Seg. Belcher, g. s.	Nev.	160	640,000	6,400	100	244,800	Oct.	1876	3 00																	
Shamrock, s. l.	Col.		10,000,000	100,000	100																					
Silver Cliff, s	Col.		10,000,000	200,000	50									4.00				4.10				4.50	4.25	4.55	4.50	1,375
Silver Hill, g. s.	Nev.	5,400	10,800,000	108,000	100	1,566,000	Apr.	1880	0 50																	
Silver Prize	Nev.	1,500	10,000,000	100,000	100	65,000	Mar	1879	0 25																	
So. Bodie, g.	Cal.	1,500	10,000,000	100,000	100	59,000	Apr.	188	0 15													18c	12c			900
So. Bulwer, g.	Cal.	1,500	10,000,000	100,000	100	145,000	Apr.	1880	0 50					85c						80c	75c					500
So. Noonday, g.	Cal.		10,000,000	100,000	100																					
South Hite G. M. Co.	Cal.		2,500,000	100,000	25													1.50		1.50	1.45	1.55	1.50	1.55	1.50	1,500
Sutro Tunnel	Nev.		20,000,000	2,000,000	10	*												1⅞		2.00		1¾		1⅞		3,700
Tiptop	Ariz	1,500	10,000,000	100,000	100	120,000	Mar.	1880						6.50								6½				193
Tioga	Cal.	1,500	10,000,000	100,000	100	180,000	Mar.	1880	0 20																	
Trio	Col.	1,250	150,000	150,000	1																					
Trojan	Nev.	1,500	10,000,000	100,000	100	290,000	Jan.	1880	0 25																	
Tuscarora, s	Nev.		10,000,000	100,000	100	50,000	Feb.	1880	0 15					10c								8c		9c		2,500
Union Cons. g. s.	Nev.	800	10,000,000	100,000	100	860,000	July.	1879	2 00																	
Utah, g. s.	Nev.	1,000	2,000,000	20,000	100	1,220,000	Apr.	1880	2 00																	
Ward	Nev.	1,200	11,000,000	110,000	100	143,000	Jan.	1880	0 40																	
Wells Fargo, g. s.	Nev	1,500	10,800,000	108,000	100	264,600	May.	1880	0 10																	

*14.30 G. Gold. S. Silver. L. Lead. C. Copper. * Non-Assessable. † Assessment paid. ‡ Ex dividend. Total shares sold during the week, 204,285.

Engineer Mountain, about 15 miles from Lake City, Colo.

Rappahannock.—The secretary writes, under date of the 9th inst., as under

"The mill started June 21st, P. M. In 10 days there were crushed 120 tons of ore—taken promiscuously from all parts of both levels. The result of the clean-up I took to New York in the shape of dry amalgam, and the exact value will be ascertained in a few days, as I have deposited the amalgam in the U. S. Assay Office for coinage. The estimated value of the amalgam is about $1800. This result, from 120 tons of ore, is 50 per cent greater than our highest expectations, and shows an average of $15 per ton. The mine is now upon a self-sustaining basis, and we feel confident that dividends can be regularly declared in the early future."

Robert E. Lee.—The managers of this company are busily engaged in making arrangements for the erection on this property of extensive machinery, which is expected to largely increase its production.

DIVIDENDS.

The Great Eastern has declared a dividend (No. 4) of $3000, or 1 per cent on the capital stock, payable July 15th. The gold product of the mine for June was $16,894. A considerable portion of this amount was devoted to improvements, besides leaving nearly $3000 in the treasury, after paying the dividend.

The Ontario Silver Mining Company has declared its regular monthly dividend (No. 57), for June, of 50 cents per share, payable at the office of Messrs. Wells, Fargo & Co., No. 65 Broadway, on July 15th.

The dividend of 75 cents per share, which was declared by the Standard Consolidated Mining Company on July 2d, will be paid on July 12th at the agency of the Nevada Bank, No. 62 Wall street. Transfer-books will be closed on July 6th and will be reopened on July 13th. This is the thirty-fourth monthly dividend declared by this company.

The Consolidated Virginia Mining Company has declared a dividend of 50 cents a share.

The New York Hill Mining Company declared a dividend of 25 cents per share, which became payable on June 25th.

The Little Schuylkill Navigation Railroad and Coal Company announces a dividend of three and one half per cent, payable July 12th.

A dividend of three and one half per cent (equal to $1.75) is announced by the Mine Hill & Schuylkill Haven Railroad, payable July 16th.

The Barbee & Walker, it is said, will declare a second dividend of $10,000 for July. And also that it will carry over a surplus sufficient for two more dividends. The company will rent a five-stamp mill now idle at Silver Reef.

The Napa Consolidated Quicksilver Mining Company has paid ten dividends of $10,000 each, and is said to have now a sufficient amount on hand to pay the eleventh. At the same time, the company has been paying for machinery and hoisting-works, and the mine is now in excellent condition. The company expects soon to double the capacity of its works. A sixteen-ton furnace is now being run, and the results are greater, it is said, than those obtained from any other furnace of that size in California.

It is said that the Climax Mining Company will, in August, increase its dividend of 10 cents per month. The money is in the treasury for the purpose. Within the past eight months, 6 per cent has been paid in dividends on the par value of the entire capital stock.

The dividends paid by mining companies for June, in San Francisco, amounted to $475,766. Three years ago, the monthly dividends generally amounted to over $2,500,000. The list given is as follows:

Deadwood Mining Co	25c. per share	$25,000
Eureka Con. Mining Co	50c. per share	25,000
Excelsior W. & G. M. Co	25c. per share	25,000
Father de Smet Mining Co	30c. per share	30,000
Homestake Mining Co	30c. per share	30,000
Idaho Mining Co	$4 per share	12,400
Napa Con. Quicksilver Co	10c. per share	10,000
New York Hill Mining Co	25c. per share	9,250
Northern Belle Mining Co	50c. per share	25,000
Ontario Mining Co	50c. per share	50,000
Standard Con. Mining Co	75c. per share	75,000
Total		$475,766

It is estimated that over one half of the above stocks are held on this coast.

REVIEW OF THE SAN FRANCISCO MARKET.

The occurrence of the national holiday has interrupted the operations of the San Francisco Mining Share market, and as a consequence we can only record the prices prevailing during four days' business. From these we can not discover that any vitality has yet reached the market; many of the stocks are stationary, while in others we still record lower figures. Assessments are necessarily following each other with the customary regularity, and of course they are absolutely the life of the lode.

SAN FRANCISCO MINING STOCK QUOTATIONS.

Daily Range of Prices for the Week.

NAME OF COMPANY	CLOSING QUOTATIONS. July 2.	July 3.	July 5.	July 6.	July 7.	July 8.	Opening. July 2.
Alpha	5				5	4¾	4¾
Alta	1⅞				1⅞	1¾	1¾
Argenta					7-16	7-16	
Bechtel					1	1	
Belcher	1¾				2	1¾	1¾
Belle Isle	½				9-16	9-16	
Belvidere	2¾				2⅝	2⅝	
Best & Bel.	9				9⅜	8⅞	8⅝
BlackHawk	19-32				9-16	9-16	
Bodie	6¼				5¾	5⅝	5⅝
Boston Con.	1⅛				1⅛	1⅛	1⅛
Bullion	1				2	1⅞	
Bulwer					2½	3	3
Caledonia	9-16				½	11-32	
California					2⅛	2	2
Cal. B. H.							
Chollar	2⅝				3		
Con. Imp	¼				5-16	¼	¼
Con. Pacific					1¾	1¾	1¾
Con. Va	3½				3⅝	3½	3½
Crown P'int	1½				1⅝	1¼	1¼
Dudley					½	13 32	
Eureka Con	18½				18½	17¾	
Exchequer	1⅝					1½	1½
Goodshaw	1¼				1¼	1¼	
Gould & Cur	3⅜				3⅜	3¼	3¼
Grand Prize	1¼				1⅜	1⅜	
Hale & Nor.	4				4	3½	3½
Hillside							
Indep'd'nce							
Jackson							
Julia Con	9-16				½	7-16	7-16
Justice	13-16					½	½
Kentuck							
Lady Wash	¼						
Leeds							
Leopard							
Leviathan							
Mammoth	2¼				2⅜	2¼	2¼
Manhattan							
May Belle							
Mar. White					½		
McClinton	¼				5-32	5-32	
Mexican	8¾				9	8⅛	8⅛
Mono	4¼				3⅞	3⅝	3⅞
Navajo					11-32	13-32	
North. Belle	12				12¾	13	
N. Bonanza	3-32				1-16		
N. Standard							
Noonday	4				3¾	3¾	
Ophir	6⅞				8⅛	7½	7½
Orig. K'ys'e							
Overman	29-32				1	29-32	
Potosi	2⅛					2	2
Ray. & Ely						1	
R. de Monte							
Savage	2				2⅛		1⅞
Scorpion							
Seg. Belcher							
Sierra Nev.	12⅝				12⅞	11½	11½
Silver Hill					7-16	13-32	13-32
Silver King					5½	5½	
So. Bulwer							
Summit							
Syndicate					13-16	¾	
Tioga	1¼					1¼	
Tip Top	6½				6¾	6¾	6¾
Trojan							
Tuscarora	5-32					5-32	
Union Con.	20⅜				21⅝	20½	20⅝
Utah							
Wales	3¼					3¼	
Yel. Jacket	5⅜				5¼	5	5

A special dispatch from Gold Hill, Nev., dated July 7th, says that the mining situation there is practically unchanged. The Union Consolidated is preparing to open the 2500 level by extending the drift from the Union shaft to the Sierra Nevada station at the 2500 level of the incline, and also by running south on the 2500 level. The drift from winze No. 1 toward winze No. 2 on the 2500 level is in quartz, portions of which assay $32. The Hale & Norcross company has been compelled to suspend ore extraction on account of the heat. This has been caused by want of communication between the 2200 and 2400 levels. The west drift in the Chollar mine, which caved during the late flooding and must be repaired, will afford the needed ventilation. The delay will be short. The Yellow Jacket pumps are running well. The Chollar has contracted for hydraulic pumping-apparatus, to be completed and in use in six months, which will add 16,000 gallons per minute to the present capacity of 9000 gallons. In Ophir, the diamond drill running west on the 2400 level found low-grade ore. The north drift on the 2500 level is in heavy vein-material which promises well.

It is said that as the big pump at the 2500 level of the Union shaft will start up between the 1st and 4th of next month, and as this will be immediately followed by work on the 2500 and 2400 levels of the Union Consolidated and Sierra Nevada mines, it will give new interest to the situation at the north end, and that it will also make a foundation for a "boom" in Comstocks in the early fall.

Every person engaged in mining in California is compelled by the 1st of July to make a sworn statement of the number of inches of water used by him in washing gravel, ores, or minerals. This is imperative, and whoever has failed to heed it will by the law be compelled to pay a heavy additional tax.

The Bank of California has attached the Guadaloupe Quicksilver Mining Company's property for $128,776. The property is in Santa Clara County, California, and is owned by residents of Baltimore, Md. The owners, it is reported, offered to settle all claims of the bank justly due, which offer was declined.

The following published statement is significant: In the south lateral drift of the Sutro Tunnel, work has been suspended on account of the failure of the Bullion Mining Company to pay for the running of the same.

Northern Belle closed yesterday at $13, which is an advance on previous prices. This company shipped $8618 on the 26th ult., making a total, up to date, of $76,115.02. The pulp assay was $56 per ton. Mill No. 2 was running, and mill No. 1 would be ready to start again on the evening of the 28th.

Mexican opens to-day at $8½. There is nothing of special interest in this mine.

As soon as the Union pumps are working to the 2500 level of the Sierra Nevada mine, the incline will be drained, and a drift will be started to connect with the one coming from the Union shaft, 2500 station. The north drift on the 2400 level is out 912 feet, and is still in encouraging vein-material. This stock is lower, opening to-day at $11½, as against $13 a week ago. Rumors have been previously circulated regarding the improvement in this mine and the Union. The quotations, however, do not seem to confirm this.

In the Union, the work on the 2400 level, winze No. 2, is being advanced at the rate of only 1½ feet per day; the ground is very hard with a strong flow of hot water. The quartz encountered in this winze gives low assays. This stock opens lower.

Active work is going on in all parts of the Yellow Jacket mine. Late advices stated that the pumps have been carried 25 feet below the 3000 level. This stock is fairly steady at the low prices recently attained, opening to-day at $5 per share.

It is stated that the ore recently struck in the Hale & Norcross mine is yielding very well. The stock, however, is low, opening to-day $3½ against $4 as quoted in our last.

The Best & Belcher Mining Company is hoisting about 100 tons of ore per week from its 2100 level, the average assays of which amount to about $46 per ton.

Eureka Consolidated closed yesterday at $17¾, the lowest price for some time past. Nothing of special interest is to be observed in the usual superintendent's letter covering the week's operation of this mine. The supply of ore is ample to run the two furnaces.

The *Commercial Herald* of the 1st inst. thus sensibly reviews the situation:

"The mining share market seems to have lost all vitality. The sales are meager, the prices at bed-rock figures, and the assessments quite numerous. Nobody is anxious to buy when the bottom seems to have dropped out; but as soon as an advance is inaugurated, a rush is made and the higher they go, the more anxious become the purchasers. The cool experienced heads know full well how to manage, and let only the smallest discovery of ore be made on the Comstock and the past indiscretions will surely be repeated, where the few will gain and thousands will again be victimized."

PHILADELPHIA MINING STOCKS.

The subjoined table shows the opening, highest, lowest, and final sales of all the mining stocks dealt in at the Philadelphia Stock Exchange, and at the Philadelphia Mining Exchange, for the two days ending the 7th inst.:

Stocks.	Opening.	Highest.	Lowest.	Final.	Sales Shares.
Argenta	$0.21	$0.21		$0.21	500
Tioga	.73	.82	$0.72	.81	2,200
Buena	.14	.14		.14	400
Bechtel	1.05	1.10	1.05	1.10	800
Belle Isle	.50	.52	.49	.52	2,000
Buckeye	.30	.33	.30	.33	3,100
Bodie Chief	.65	.65		.65	250
Conquest	.90	.90		.90	200
Con. Virginia	3.40	3.40		3.40	200
California	2.00	2.00		2.00	100
Con. Pacific	2.25	2.25		2.25	300
Dauntless	.07	.07		.07	100
Dahlonega	.09	.09	.08	.09	1,400
Findley	.18	.19	.17	.18	1,800
Great Eastern	.63	.63	.60	.62	1,100
Granville	.13	.13	.12	.12	2,000
Gold Placer	.61	.61		.61	600
Girard					2,500
Hukill	1.65	1.75	1.50	1.60	900
Imperial	.27	.27	.25	.25	400
Iowa Gulch	.20	.21	.18	.21	6,375
Little Keystone	.55	.60	.55	.60	3,000
Leadville	.73	.73	.72	.72	600
Lucerne	.13	.14	.13	.14	500
Moose	.75	.75	.73	.74	900
Orion	1.20	1.20		1.20	600
Rara Avis	.16	.16		.16	500
Sutro Tunnel	1.75	1.75		1.75	100
So. Hite	1.50	1.55	1.40	1.40	800
Tombstone	4.50	4.50		4.50	100
Number of sales					33,225

Coal Stocks.

NEW YORK, Friday Evening, July 9.

These stocks have been extremely dull and lifeless

COAL STOCKS.

NAME OF COMPANY.	Capital Stock.	SHARES. No.	Par Val.	Last Dividend. Mo.	Y.	R't.	Rate per Ann.	Quotations of New York stocks are based on the equivalent of $100. Philadelphia prices are quoted so much per share. July 3. H.	L.	July 5. H.	L.	July 6. H.	L.	July 7. H.	L.	July 8. H.	L.	July 9. H.	L.	SALES.
	$		$				Per c'nt													
Am. Coal Co.	1,500,000	60,000	25	....	..	....	....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	.....
Buck Mt. Coal	.....	.....	50	....	..	....	....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	.....
Col. C. & I. pr.	10,000,000	100,000	10	....	..	....	....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	.....
Ches. & O. RR	15,000,000	150,000	100	....	..	....	....	....	.....	....	.....	....	.....	16¾	.....	....	.....	....	.....	10
Consol. Coal.	10,250,000	102,500	100	Jan.	77	2½	....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	.....
Cumb. C. & I.	500,000	5,000	100	....	..	....	....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	.....
Del. & H. C.	20,000,000	200,000	100	Aug	76	4	9	....	.....	....	.....	76	75¼	75¾	75¼	74¾	74	74¼	73⅝	4,005
D., L. & W. RR	26 900 000	524,000	50	July	76	2½	5	77¾	76¾	....	.....	78½	77½	77⅞	77⅛	77¼	76	77	76	51,970
Lehigh C. & N	10,148,550	208,971	50	Sept	76	1½	5½	....	.....	....	.....	27¾	27¼	25¼	25½	27⅛	26⅞	27⅜	27¼	6,265
Leh. V'y R. R	27,228,855	540,858	50	Sept	79	1	4	....	.....	....	.....	....	.....	49⅞	49¾	49¾	.....	49¾	49½	405
Maryl'd Coal	4,400,000	44,000	100	Jan.	76	1½	1½	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	.....
Montauk C'l.	2,500 000	25,000	100	....	..	....	....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	.....
Morris & Es'x	15,000,000	300 000	50	July	79	3½	7	....	.....	....	.....	106¼	.....	106⅜	105½	105¾	.....	105¼	105	890
New Cen. C'l	5,000,000	50,000	100	Jan.	79	2	....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	.....
N. J. C. R. R.	20,000,000	200,000	100	Apr	76	2½	2½	66⅛	65¾	....	.....	67¾	66¾	67⅜	66½	66¼	65⅝	66½	65	42,225
N.Y.& S.Coal.	1,500,000	150,000	100	....	..	....	....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	.....
Penn. Coal...	5,000,000	100,000	50	Oct.	79	3	10	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	.....
Penn. R. R..	68,870,200	*237,404	50	Nov.	79	2½	10	....	.....	....	.....	54	53½	54¼	53⅜	53¾	53¼	53½	53¼	29,076
Ph. & R. R.R*	34,278,175	685,563	50	Jan	76	2½	....	16⅛	15¼	....	.....	15½	15¼	15⅞	15½	15⅛	15	15⅞	14⅜	18,265
Spring Mt. C'l	1,500,000	30,000	50	Dec.	79	3½	....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	.....

*Of the sales of this stock, 9,665 shares were sold at the Philadelphia Stock Exchange, and 7,600 at the New York Stock Exchange.

Total Sales..... 153,111

BOSTON MINING STOCKS.

NAME OF COMPANY.	Shares.	Par.	July 2. H.	L.	July 3. H.	L.	July 5. H.	L.	July 6. H.	L.	July 7. H.	L.	July 8. H.	L.	SALES. Shares
Allouez, c.....	Mich.	80,000	$25	....	.....	....	.....	....	.....	....	4 9-16	.....	.....	4	125
Atlantic, c.....	Me...	40,000	25	....	.....	....	.....	....	.....	....	.....	.....	18	.....	50
Atlas.....	Mich.	.....	...	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Aztec.....	.....	.....	...	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Blue Hill, c.....	Me...	50,000	10	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Brunswick.....	Me...	.....	...	17	.....	....	.....	....	.....	....	.....	.....	.....	.....	50
Cal. & Hecla, c..	Mich.	100,000	25	....	.....	224	.....	....	225	.....	224½	.....	.....	.....	28
Catalpa.....	Colo..	300,000	10	1 9-16	.....	....	.....	....	1 9-16	.....	1 9-16	.....	1 9-16	.....	450
Central, c.....	Mich.	20,000	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Chrysolite.....	Colo..	.....	...	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Copper Falls, c.	Mich.	20,000	50	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Copp'r Harbor, c	Mich.	20,000	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Cont'tm'nt M.Co	.....	.....	...	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Dana, c.....	Mich.	20,000	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Douglas, c.	Me...	100,000	5	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Duncan, s.....	Ont..	60,000	20	....	.....	....	.....	....	.....	....	.....	.....	2	.....	200
Franklin, c.....	Mich.	20,000	25	13	.....	....	.....	....	.....	....	13¼	.....	.....	.....	160
Great Western..	Mich.	20,000	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Hanover.....	Mich.	20,000	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Harshaw.....	Ariz..	100,000	100	....	.....	30½	.....	....	30½	.....	31	30	30¾	.....	659
Humboldt, c....	Mich.	20,000	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Hungarian, c...	Mich.	20,000	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Huron.....	Mich.	.....	...	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
International, s.	Ont..	60,000	20	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Madison.....	Mich.	.....	...	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Manhattan, c....	Mich.	20,000	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Mesnard, c.....	Mich.	20,000	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Minnesota, c....	Mich.	20,000	25	....	.....	....	.....	....	.....	....	3	.....	.....	.....	100
National, c.....	Mich.	20,000	25	....	.....	....	.....	....	.....	....	2⅛	2 1-16	2⅛	.....	250
Orford.....	Can..	50,000	20	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Osceola, c.....	Mich.	40,000	25	....	.....	....	.....	....	37	.....	37	.....	.....	.....	198
Pewabic, c.....	Mich.	20,000	25	....	.....	....	.....	....	.....	....	.....	.....	17	.....	110
Phœnix, c.....	Mich.	20,000	50	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Pontiac, c.....	Mich.	20,000	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Ridge, c.....	Mich.	20,000	25	4¼	.....	....	.....	....	.....	....	4¼	.....	.....	.....	210
Rockland, c.....	Mich.	20,000	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Quincy, c.....	Mich.	40,000	25	....	.....	....	.....	....	28	.....	.....	.....	27¾	27½	175
Silver Islet, s....	Mich.	40,000	25	....	.....	....	.....	....	12½	12	13½	.....	.....	.....	.....
So. Hite, c.....	Cal...	100,000	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Star, c.....	Mich.	20,000	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Sullivan, s.....	Me...	50,000	10	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Superior.....	.....	.....	...	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Sutro Tunnel....	Nev..	*	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Silver Nugget..	.....	.....	...	....	.....	....	.....	....	.....	....	.....	.....	40	.....	200
Union L. & C.Co.	Mich.	.....	...	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Washington, c..	Mich.	20,000	25	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....
Waukeag.....	Me...	.....	...	....	.....	....	.....	....	.....	....	.....	.....	.....	.....	.....

c Copper. s. Silver. * 2,000,000.

during the current week, and prices have declined. The holiday on Monday considerably reduced the aggregate of sales, and this, with a dull market, makes the total transactions foot up to only 153,111 shares, as against 464,816 shares for preceding week. A dispatch from Philadelphia states that the recent movement to secure a foreclosure of the general mortgage of the Philadelphia & Reading Railroad was merely a step to secure priority of claim by certain persons, so as to prevent the road from falling into other hands, should some one else in the future take the same action. The amount represented by the petitioners is only $15,000 out of $60,000,000, and the petitioner is the Farmers & Mechanics' Bank, the corporation which first threw the road into bankruptcy, and of which Mr. Edwin M. Lewis, one of the receivers, is the president. It is probable that the petition will be granted, and then some plan presented for reorganization.

The Masters filed their first report on the 2d inst., but it fails to state anything further than the dry details of the receipts and disbursements made under their supervision since they have had charge of the concern. They say that the receivers' accounts as to the railroad company from May 25th to June 12th, inclusive, have been examined and found to be nearly correct, The account as to the Coal and Iron Company from May 25th to June 23d was examined and found correct. The account of the railroad company shows that the receipts were $2,719,014.74, and the balances on hand $151,803.47. The payments for wages, salaries, and contingent expenses were $862,602.20, and for interest, etc., $1,856,412.53. The account of the Coal and Iron Company shows that the receipts were $417,043.35, the payment for wages, interest, etc., $406,194.70, and the balance on hand, $10,848.65. The transactions in the stock, in the market, during the past week have amounted to 7600 shares at $16⅛ @$14⅝.

The sales of Delaware & Hudson Canal have amounted to 4505 shares at $76@$73⅝.

Delaware, Lackawanna & Western has sold to the extent of 51,970 shares, at prices ranging from $78½ down to $76.

New Jersey Central has been comparatively steady, the price fluctuating between $67¾@$65. The sales amount to 42,225 shares.

Copper and Silver Stocks.

Reported by C. H. Smith, Commission Stock Broker, No. 15 Congress street, Room 3.

BOSTON, July 8.

There has been but little doing in copper stocks the past week, owing, in part, to the occurrence of the annual holiday and the absence of orders. The market has, however, shown a good degree of firmness, and prices are not materially changed.

Calumet & Hecla continues to rule steady, with small sales at $224@$225.

Nothing doing in Central or Copper Falls. The latter stock is in good demand at about $10, with a few shares only offering at $11.

Franklin sold at $13@$13¾, but there is not much stock to be had at these figures; an order to buy 1000 shares would advance the price several points. The mine is looking well, and the stock is considered cheap at present prices.

Osceola, sales at $37, which is bid for the stock, none offered.

Pewabic, dull but steady at $17.

Atlantic, sales small lots at $18@$18¼.

Allouez sold at $4 7-16, which is an advance of 7-16 since last sale.

Ridge declined from $4¼ to $4¼, closing $4 bid.

National a shade lower, sales at $2 1-16@$2⅛.

Minnesota sold at $3.

Brunswick Antimony sold at $17.

There was nothing done in the balance of the list.

SILVER STOCKS.

Harshaw was the most active stock of this class, and declined to $30, rallying at the close, however, to $30¾@$31.

Catalpa dull at $1 9-16, at which all the sales were made.

Silver Islet advanced, on the report that the mine was looking more favorable, from $11½ to $14, and we hear of sales since the board on the street, at $14½.

Duncan Silver sold at $2, assessment paid.

International sold at 40c.

Miscellaneous Stocks and Quotations.

Sales and quotations of the stocks and bonds dealt in at New York, Philadelphia, and Baltimore, for the week ending the 8th inst., are given in the following tables. The Philadelphia quotations will have a * affixed. The Baltimore quotations are indicated thus †

STOCKS.	Par Value.	High'st	Lowest	Closing	Sales: Shares.
St. L., I. M. & S. R. Co..	100	46½	44	44⅜	13,425
*Cambria Iron Co..	50	.....	.....	.....	.....
*Penn. Salt Mf'g Co.	50	82	.....	.....	4
*Schuyl. Nav. Co. pf	50	4⅝	4½	4⅝	500
*N. Central RW...	50	32¾	31½	31½	205
*H. & B. T. Mt. RR. pf	50	.....	.....	.....	100
" " " " com.	....	6½	.....	.....	100
*Northern Penn. RR	50	.....	.....	.....	.....
†B. & O. RR. Co. 1st pf	....	.....	.....	.....	.....
†B. & O. RR. Co. 2d pf	100	107	.....	.....	200
" " " " com	90	155	.....	.....	229

BONDS.	Princ'l. When Due.	Int'est. When Due.	Hig'st.	Lowest	Amount.
D., L. & W., 7s, conv	1882	J. & D.	... ..	.....	....
" " " 2d 7s....	1907	M. & S.	.....	.....	.....
M. & E., 1st con., 7s.	1915	J. & D.	120½	.....	$4,000
" " " 2d 7s.....	1891	F. & A.	109	.....	5,000
" " " 7s, 1871...	1901	A. & O.	.....	.....	.....
N. J. C., 1st mtge. new	1890	F. & A.	118¾	.....	2,000
" " " 1st mtge., con	1899	Q.	103¾	103	‡24,000
" " " convt. 7's ...	1902	M. & N.	103½	102¾	‡19,000
" " " Adimt bds....	1903	M. & N.	107	.....	1,000
" " " Income.....	1908	M. & N.	.....	.....	.....
L. & W. B., con....	1900	Q.	95½	94⅜	‡22,000
" " " Income	1888	M. & N.	.....	.....	.....
Am. Dock & Imp. 7s	1886	J. & J.	.....	.....	.....
St. L. I. M. & S. 1st mt	1892	.... ..	.....	.....	.....
" " " " " pf. inc.	...	.....	83	.....	9,450
" " " " " 2d, 7s	1897	F. & A.	100⅞	100¾	46,000
" " " " " pf. inc.	.....	.....	74	.....	10,000
St. L. & I., M. C. & F., 1st, 7s	1891	M. & N.	108	.....	2,000
St. L. & I. M Cairo, A. & T., 1st, 7's..	1897	J. & J.	.....	.....	.....
Ches. & O., 1st s'rs b	1908	J. & D.	65¾	.....	2,000
" " 6s, cr. int. df	1918	M. & N	38½	33	126,000
D & H C Co., 1st m. rg	1884	J. & J.	.....	.....	.....
" " " " "	1891	J. & J.	.....	.....	.....
" " " " m. loan cp	1894	A. & O.	.....	.....	.....
" " " " " rg.	1894	A. & O.	108	.....	1,000
" " " " new mge.	.....	.....	.....	.....	.....
" " " " 1st Pa. div., 7s, coup.	1917	J. & D.	.....	.....	.....
" " " " 1st Pa.. div., 7s, rg.	1917	M. & N.	.....	.....	.....
L. V. R., 1st m. 6s. cp.	1898	M. & S.	.....	.....	.....
" " " " rg.	1898	J. & D.	118	.....	12,000
" " " 2d m. 7s, rg.	1910	J. & D.	128	.....	3,000
" " " con. m. 6s, rg	1823	M. & S.	112	.....	1,000
" " " " 6s cp.	1923	J. & D.	.....	.....	.....
*Pa. RR., 1st m. 6s, cp	1880	J. & D.	100½	.....	1,000
" " g. m., 6s, cp.	1910	J. & J.	119	.....	2,000
" " " 6s, rg.	1910	J. & J.	.....	.....	.....
" " con. m. 6s, rg.	1905	A. & O.	112½	....	1,000
" " " 6s, cp.	1905	Q.	110	.....	1,000
*P. & R. R., 1st m. 6s, R. C. 43-44.....	1880	J. & J.	.....	.....	.....
*P. & R. R., 1st m. 6s, R. C. 48-49.....	1880	J. & J	.....	.....	.....
*P. & R. R., gen 6s, G C	1908	J. & J.	.....	.....	.....
" " " scrip....	1882	J. & J.	.....	.....	.....
" " deb. ex-cp.	1893	.....	.....	.....	.....
" " " c. m. 7s, cp.	1911	J. & D.	107½	107	14,000
" " " 7s. rg.	1911	J. & D.	107½	.....	7,000
" " " m. 6s r. c.	1911	J. & D.	100½	.....	3,000
" " " cvt. 7s, exc	1893	J. & J.	114½	114	8,000
*L. Nav. Co., 6s, rg. m.	1884	J. & Q.	106	.....	2,100
" " RR., rg. m.	1897	F. & Q.	110	.....	1,000
" " cvt. Gold R.	1894	M. & S.	106½	.....	1,000
" " m Gold R. C.	1897	J. & D.	103½	102¾	2,500
" " con. m. 7s, rg.	1911	J. & D.	102½	.....	2,000
*P. & N. Y. C., 7s, R. C.	1896 / 1906	J. & D.	... ..	.....	.....
*Pa Canal, 6s....	1910	J. & J.	.....	.....	.....
*Schuyl. Nav., 6s...	1882	.....	.....	.....	.....
Sus. Can. 6s, ex-cp.	1918	.....	.....	.....	.....
*Sus. Coal, 6s, c....	1911	J. & J.	.....	.....	.....
†Balt. & O. RR., 6s..	1880	J. & J.	.....	.....	.....
" " " " 6s..	1885	A. & O.	.....	.....	.....

‡ Assented.

Gas Stocks.

NEW YORK, Friday Evening, July 9.

Gas stocks have advanced materially in price during the past week, and the market for New York stocks closes strong and advancing. The Brooklyn stocks are weak and lower, in consequence of the active op-

erations of the new company. In the test-suit brought by James J. Coogan against the Municipal Gas-Light Company, of this city, to procure a mandamus to compel the defendant to supply him with gas according to contract, Judge Lawrence rendered a decision denying the motion. Plaintiff claimed that he had made a contract with the defendant to supply him with gas at $1.25 per 1000 feet, and that they sold out to the New York Gas-Light Company, who raised the price. Judge Lawrence upholds the sale as valid.

The Jersey City Gas Company has declared a dividend of 7½ per cent.

Salem County, N. J., Gas.—The officers of the Salem Gas-Light Company have reduced the price of gas to private consumers in that city to $2.50 and to the city to $2.25 per thousand feet. The company has also decided to place a gas-stove in the house of any person desirous of trying it, and, if not satisfactory, will remove it free of cost.

The following list of companies in New York and vicinity is corrected weekly by GEORGE H. PRENTISS, Broker and Dealer in Gas Stocks, No. 19 Broad street, New York. Quotations are based on the equivalent of $100.

COMPANIES IN NEW YORK AND VICINITY.	Capital Stock.	Par.	DIVIDENDS. Rate per ann.	DIVIDENDS. Am. of last.	DIVIDENDS. Date of last.	QUOTATIONS Bid.	QUOTATIONS As'd.
	$		P. ct.				
Mutual, N. Y.	5,000,000	$100	6	1½	July, '79	75	80
" Bonds	900,000	1,000	6	3½	Feb., '80	100	104
N. York "	4,000,000	.....	8	4	June, '80	101	102
Metrop. "	2,500,000	100	10	5	June, '80	145	150
" Certfs.	1,000,000	.....	7	3½	June, '80	103	103
Harlem "	1,850,000	50	6	3	Feb., '78	70	75
Manhat. "	4,000,000	50	....‡	8	June, '80	190	195
Brooklyn, Bkln.	2,000,000	50	15	5	May, '80	110	120
Nassau	1,000,000	25	....‡	2½	Jan., '80	50	75
" Certfs.	700,000	1,000	7	3½	Nov., '79	90	95
People's	1,000,000	10	....‡	3½	Jan., '76	39	45
" Certfs.	250,000	1,000	7	3½	Jan., '80	75	85
" Bonds	375,000	.....	7	3½	Nov., '79	95	100
Metrop. "	1,000,000	100	5	2½	Jan., '80	50	65
W'msb'g "	1,000,000	50	8	1½	Feb., '80	60	70
" Bonds*	1,000,000	1,000	6	3	.....	101	102½
Citizens'	1,200,000	20	....‡	2½	Feb., '80	60	65
" Bonds	315,000	1,000	.....	3½	Oct., '79	100	105
J. C., N. J.	750,000	20	10	7½	July, '80	150	160
Municipal, N. Y.	2,000,000	100	12	5	July, '80	175	180
" Bonds	750,000	100	7	3½	Nov., '79	105	110
Fult'n M'nicipal	1,500,000	100	.....	.....	.....	70	80

* Changed from certificates to bonds, of $1000 each; 6 per cent per annum.

THE BULLION MARKET.

NEW YORK, Friday Evening, July 9.

The market has receded in London, in consequence of the impending Oriental disturbances, and is reported as weak, and more likely to decline somewhat further than to advance. It may be regarded as only nominal here at the quotation given in table.

DAILY RANGE OF SILVER IN LONDON AND NEW YORK, PER OZ

DATE.	London Pence.	N. Y. Cents.	DATE.	London Pence.	N. Y. Cents.
July 3	52 11-16	114¾	July 7	52⅝	114½
July 5	52⅝	114⅝	July 8	52 9-16	114½
July 6	52⅜	114½	July 9	52½	114⅜

BULLION SHIPMENTS.

We give below a statement showing the latest published bullion shipments, in addition to those announced in our issue of July 3d:

June	16	Crevice	Mont.	$2,700
"	19	Dugout	Nev.	3,272
"	19	Tombstone	Ariz.	9,504
"	19	Contention	"	5,921
"	21	Silver King, concentrations	"	12,800 lbs.
"	21	Bodie	Cal.	$7,717
"	22	Dexter	Mont.	4,000
"	23	Northern Belle	Nev.	7,265
"	24	Sierra Nevada	"	5,180
"	24	Tombstone	Ariz.	10,190
"	24	Contention	"	7,639
"	25	Dry Valley Mill	Nev.	1,100
"	25	Manhattan	"	83,985
"	25	Paradise Valley	"	4,190
"	25	Pioche	"	5,174
"	25	Eureka, passing	"	573
"	25	(a) Ontario	Utah	4,241
"	25	(a) Griffin, car	"	3,818
"	26	Paradise Valley	Nev.	4,188
"	26	Northern Belle	"	4,619
"	26	Richmond	"	24,678
"	26	Cons. Virginia	"	60,686
"	26	Eureka, passing	"	1,500
"	26	Lexington Mill	Mont.	10,000
"	26	Misc. Mines, Butte	"	2,000
"	26	(a) Hillside	Utah	3,736
"	26	(a) Ontario	"	5,879
"	26	Morgan, 1 car; Stormont, (a) 4 bars	"	9,750
"	26	(a) Barbee & Walker	"	1,575
"	27	Silver Cliff M Co	Colo.	5,000
"	27	Eureka, passing	Nev.	2,330
"	27	Richmond	"	24,678
"	28	Silver King, concentrations	Ariz.	16,000 lbs.
"	28	Central City	Colo.	$4,000
"	28	(a) Christy	Utah	2,112
"	28	(a) Barbee & Walker	"	1,453
"	28	(a) Carrie Steele	"	1,880
"	28	(a) Ontario	"	15,078
"	28	Eureka, passing	Nev.	4,078
"	29	Richmond	"	17,929
"	29	Old Telegraph, 2 cars; Brooks, 1 car; (a) Morgan, 1 car	Utah	6,650
"	29	(a) Ontario	"	9,304
"	29	Hillside	"	3,072
"	30	Dexter Mill	Mont.	2,230
"	30	Leggatt's Mill	"	3,000
"	30	Silver Bow Mill	"	11,000
"	30	Centennial Mill	"	3,000
June	30	(a) Christy	Utah	$1,872
"	30	(a) Barbee & Walker	"	1,377
"	30	Brook, 1 car; Morgan, 1 car; Stormont, 4 bars, (a)	"	12,050
July	1	Central City	Colo.	4,600
"	1	Eureka, passing	Nev.	1,500
"	1	(a) Ontario	Utah	3,946
"	1	(a) Christy	"	1,882
"	1	(a) Barbee & Walker	"	1,377
"	1	(a) Hillside	Nev.	5,318
"	1	(b) Ontario	Utah	5,059
"	1	(b) Morgan, 1 car	"	1,700
"	2	(a) Barbee & Walker	"	1,508
"	2	(a) Hillside	Nev.	5,000
"	2	(a) Horn-Silver	Utah	6,400
"	2	(a) Ontario	"	4,039
"	2	(b) Stormont, 4 bars	"	4,837
"	2	(b) Barbee & Walker	"	1,508
"	2	(b) Ontario, 4 bars	"	5,205
"	2	(b) Hillside	Nev.	5,000
"	3	Silver Cliff	Colo.	6,116
"	3	(c) Horn-Silver	Utah	6,122
"	4	(a) Barbee & Walker	"	1,508
"	5	Burroughs, Central City	Colo.	1,095
"	5	New York Mill, Central City	"	1,695
"	6	Rappahannock	Va.	1,280
"	6	(c) Stormont	Utah	7,861
"	8	Sacramento	Colo.	11,000

(a) Received at San Francisco.
(b) Received at Salt Lake City.
(c) Shipped from Salt Lake City.
(d) Received in this city.

ARIZONA.

Silver King Concentrations.—Shipments of concentrations from this mine, were made as follows:

June 19	7,200 lbs.
" 20	12,663 "
" 21	12,800 "
" 28	16,000 "
" 22 (ore)	7,800 "

These concentrations were formerly sold for $1 per pound, but lately have been sold as low as 30 cents.

Contention Mill.—The *Nugget* says: "This mill has been running since the ninth day of March last, and during that time has produced nearly or quite one half million dollars in bullion. The daily average is $4000 to $5000. It is now a twenty-stamp mill, but ten more stamps will soon be added."

CALIFORNIA.

Shipments from Bodie District.—The bullion shipments from Bodie, through Wells, Fargo & Co., during the month of June, 1879 and 1880, were as follows:

	1879.	1880.
Standard Cons	$177,673.81	$165,170.08
Noonday and North Noonday	*9,171.58	56,058.07
Bodie Cons	98,837.10	30,579.30
Bulwer "	17,253.30	13,469.45
Scattering	.....	2,222.10
Total	$302,885.79	$267,499.00

* This was shipped from the Noonday mine.

The shipments during the month of June, 1879, were the largest of any month in that year.

The shipments during the first six months of 1879 and 1880 were as follows:

	1879.	1880.
January	$201,405.25	$195,693.38
February	136,714.44	131,119.42
March	189,404.46	277,336.02
April	208,541.94	247,908.70
May	142,348.20	294,977.97
June	302,885.79	267,499.00
Total	$1,181,300.08	$1,414,534.49
Shipments first six months 1879		1,181,300.08
Increase thus far this year		$233,234.41

The total bullion shipments from Bodie District, from the period of its revival in 1877 to the present time, are as follows:

1877	$797,022.80
1878	2,129,732.58
1879	2,556,847.58
First six months in 1880	1,414,534.49
Total product to date	$6,898,137.45

—*Bodie Free Press.*

Inyo County.—At Darwin, Inyo County, ore from the Custer, Vulcan, and Promontory, amounting to 150 tons, was recently smelted at the Defiance furnace in a fifteen days' run, yielding 100 tons bullion, of the value of $30,000. The New Coso furnace worked 300 tons of ore from the company's mine, which yielded sixty-three tons bullion, valued at $15,000.—*Stock Report, June* 25.

Nevada City.—During the year 1878, there were shipped by Wells, Fargo & Co.'s Express from Nevada City, Cal., $1,207,000, and during the year 1879, $1,292,762.

COLORADO.

Colorado Prince.—The Leadville *Democrat*, of the 2d inst. says: "The first product of the Colorado Prince stamp-mill was sent East yesterday morning. It consisted of two gold bricks, weighing over 700 ounces, and worth about $10,000."

Red Elephant.—The Red Elephant shipped on the 1st, 2d, and 3d inst. 30 tons of second-class ore, assaying 36 ounces, and valued at $1900. For the week ending June 28th, 150 tons of concentrating-ores were shipped.

DAKOTA.

The product of the Homestake (Black Hills, Dakota) for June was over $123,000 gold. This product is larger by $5000 than last month.

MONTANA.

Algonquin.—The Butte *Miner* says this mill is in very successful operation, as the heavy bullion shipments amply testify. In the three months and twenty days during which it has been running, the silver product has been 120,000 ounces, or upward of $135,000. Officers of the company who visited the property last week and staid several days expressed abundant satisfaction at the excellent condition of the mines and the successful management of the mill. The company at present gives employment to about 50 men.

From the Glendale Smelter, Helena, Montana, five shipments of bullion were made during the last week in June, amounting to 73,000 pounds.

The Alta-Montana shipped, from June 18th to 23d, 71,625 pounds base bullion to the Omaha refinery, valued at about $15,000.

June Bullion.—The following is the production of the mines named for June:

Great Eastern	Black Hills	$16,894
Colorado Prince	Leadville	10,000
Homestake	Black Hills	123,000
Standard	Bodie	165,000
Noondays (2)	Bodie	67,000
Little Chief	Leadville, Col.	114,000
Stormont	Utah	63,000
Ontario	Utah	185,536
Cons. Virginia	Nevada	235,000
California	Nevada	91,300
Northern Belle	Nevada	106,000

NEVADA.

Pioche Bullion.—The Pioche *Record* of the 25th ult. says:

"During the week, there were $5174 94 in bullion shipped by Wells, Fargo & Co. This is a big improvement upon nothing. As the mill of the Meadow Valley Company is now running, bullion shipments will be kept up right along. The little tailing-mill at the lower end of town shipped during the week one bar valued at $1750.84."

Alexander.—The Alexander Mining Company, for the week ended June 14th, shipped bullion to the amount of $10,382.25.

Eureka.—During the week ended June 24th, the Eureka Consolidated shipped $4,219 bullion.

Northern Belle.—From June 1st to June 26th, the Northern Belle mine produced $67,496 bullion.

Consolidated Virginia.—For the week ended June 26th, the Consolidated Virginia mine raised ore and sent to mills 1215 tons, assaying $52.21 per ton.

California.—The California, for the same period, extracted ore and sent to mills 477 tons, of an average assay-value of $37.51 per ton.

Hale & Norcross.—Hale & Norcross hoisted 98 tons of ore from the stopes on the 2100 level, the average value of car-samples being $46.39 per ton.

UTAH.

Silver Reef.—Wells, Fargo & Co. report this morning the monthly and total production of the Leeds Mining District, published under the head of Silver Reef. The monthly product is placed at $107,315.21; while the total production up to date is set at $3,261,054.13.

Stormont cleaned up $9400 on June 30th, making the total product for June, $63,000, and since January 1st, $275,087.12.

The product of the Ontario mine for the month of June was $185,536, assay value. The bullion shipments from the mine for week ending June 25th, were $48,681.

Our regular correspondent writing from Salt Lake City under date of July 3d says:

Utah's weekly bullion shipments for the week ending July 3d, inclusive, were as follows:

Ontario, 40 bars	$53,855 61
Carrie Steele, 2 bars	1,876 64
Barbee & Walker, 3 bars	4,337 20
Stormont, 8 bars	12,398 52
Leeds, 1 bar	2,111 85
Christy, 1 bar	1,871 54
Hillside, 5 cars	13,390 29
Morgan, 3 cars	4,900 00
Old Telegraph, 3 cars	7,490 00
Brooks, 3 cars	8,280 00
Horn-Silver, 8 cars	20,000 00
	$130,511 73

The Butte *Miner* of June 27th says:

"The Stevens mine will in a few days make a shipment to the Dexter of 60 tons of ore. One half of that amount will average $150 per ton and the remainder about $60."

MISCELLANEOUS.

Bullion Receipts from the Mines to New York.—The bullion received from the mines at the various offices in this city during the week ending with yesterday, as compiled from various sources, omitting Monday, which was observed as a holiday, amounts to $335,064.09, as against $381,179.74 reported in our last.

Bullion Yield of Pacific Coast Mines for May, 1880.—The *Bulletin* publishes the following:

GOLD MINES.

Black Bear Quartz, California	$13,800
Bodie Consolidated, California	23,300
Bulwer Consolidated, California	15,700
Gold Hill Quartz, California	19,000
Golden Terra, Black Hills	17,000
Godfrey Gravel, California	4,000
Homestake, Black Hills	90,000
Idaho, Nevado County, California	44,500
Independence Hill, California	9,900
Noondays, California	63,500
Standard Consolidated, California—$10,100 silver	159,500
Wyoming Gravel, California	3,300
Total 12 gold mines	$463,500

The figures for the Bodie, Bulwer, and Noondays are taken from the Bodie paper. We have been advised of only one shipment from the Gold Hill Quartz and Golden Terra, and that we have given. The product of the Homestake is based on the returns for the first half of the month. The Independence Hill yield is a run of forty days. The reports from the Godfrey Gravel and the Wyoming Gravel are the first made to this office. Both mines are in Nevada County, and have been yielding for some time.

The silver mines reporting for May are as follows:

Alexander, Nevada	$26,400
Christy, Utah	19,400
Day—ore sold to Hillside—Nevada	5,700
Grand Prize, Nevada	23,400
Hillside—$1800 lead—Nevada	36,800
Leeds, Utah	5,000
Manhattan, Nevada	80,000
Paradise Valley, Nevada	15,700
Richmond Consolidated, Nevada	80,000
Silver King, Arizona	12,000
Star, Nevada	26,400
Stonewall Jackson, Arizona	4,000
Total, 12 silver mines	$334,800

We have noticed only one shipment from the Leeds for May. The figures for the Manhattan, Richmond Consolidated, and Silver King are estimated from partial returns received at this office. The Manhattan mill is now shut down for an accumulation of ore. The Richmond Consoli-

dated declines to report, on the ground, we presume, that it is a foreign incorporation.

The gold and silver mines present us with the following returns for May:

	Gold.	Silver.	Total.
California	$33,300	$22,000	$55,300
Con. Virginia	127,300	78,500	205,800
Contention	19,800	93,800	113,600
Eureka Cons	43,000	*99,500	133,500
Union "	34,700	44,600	79,300
Totals	$258,100	$329,400	$587,500

* Including a value of $30,300 for lead.

This is the first time we have been able to incorporate the figures of the Contention, Arizona. The mill was started about March 15th, 1880, and up to June 15th the yield footed up the handsome sum of $333,755. The Ophir mine, after producing regularly for over a year, has dropped out for the present for want of milling-ore. The Alta and Hale & Norcross will probably mill some ore this month. The Union Consolidated is not crushing at present. The May yield of mines reporting compares as follows:

	1879.	1880.
Gold	$826,700	$711,500
Silver	1,022,200	642,200
Lead	35,700	32,100
Totals	$1,884,600	$1,385,800

The large decrease in the silver product will attract attention; but it must be borne in mind that returns for May are very meager, two large producers of silver failing to send any report for that month. In May, 1879, we had returns from 14 gold mines, 17 silver mines, and 5 gold and silver mines. In May, 1878, we had reports from 40 mines, showing a gross yield of $3,285,300. The mines reporting for the first five months of the year are as follows:

	1879. No.	1879. Product.	1880. No.	1880. Product.
January	35	$1,960,900	29	$1,532,200
February	32	1,811,900	28	1,367,900
March	35	2,564,300	23	1,487,400
April	39	2,437,300	25	1,240,400
May	36	1,884,600	29	1,385,800
Totals		$10,659,000		$7,013,700

An average of 30 mines in the first five months of 1878 reported a total of $21,405,800. Last year, the product was from an average of 35 mines, while this year the yield is from an average of 27 mines. The descriptions embraced in the above totals for the past two years are as follows:

	1879.	1880.
Gold	$4,496,700	$3,328,600
Silver	5,839,300	3,534,000
Lead	323,000	151,000
Totals	$10,659,000	$7,013,600

These figures are probably not over 25 per cent of the actual yield of the Pacific States and territories.

Purchase of Silver by the Treasury.—WASHINGTON, July 7th.—The Treasury Department to-day purchased 381,000 ounces of fine silver, to be coined into standard silver dollars at the Philadelphia and San Francisco mints.

San Francisco Mint Coinage.—The coinage of the United States Mint at San Francisco for the month of June was $2,794,500, of which $1,680,000 was in double eagles. The coinage of this mint since its establishment in 1854 has been as follows:

Gold	$534,653,900
Silver	71,924,400
Total	$606,578,300

The Carson Mint.—The *Carson Appeal* says the annual clean-up of the Carson Mint was made on June 29th. The melter and refiner reported having handled the following amounts of bullion: Gold, 35,421 ounces; silver, 269,478 ounces. The wastage allowed on the above was 35 ounces and a fraction in gold, and 1340 ounces in silver. The coiner reports having coined 25,735 ounces of gold, and 704,486 ounces in silver. The wastage allowed on gold was 12 4-5 ounces; silver, 704½ ounces. Actual wastage on gold, 2 ounces; on silver, 128 ounces. Director Burchard counted the coin and superintended the weighing of the bullion. There are now on hand 9900 ounces of silver bullion, valued at $184,358.96; silver bullion, 237,515 ounces, valued at $276,381. The gold coin on hand is valued at $206,330. The silver coin on hand is valued at $1,279,706.78.

Exports of Gold and Silver from New York.

Week ending July 3d	$19,537
Corresponding week last year	59,413
Since January 1st	4,702,762
Corresponding period last year	10,993,895

Gold Interest Paid Out by the Treasury.

Week ending July 3d	$7,111,829
Corresponding week last year	7,933,191
Since January 1st this year	32,923,598
Corresponding period last year	35,741,809

METALS.

NEW YORK, Friday Evening, July 9.

With the exception of tin and tin plates, the market has been quiet and without any feature. With the revival in iron, which is looked for, an improvement in some of the metals at least, may be expected. In others, however, there is but little encouragement.

Copper.—The sales have been quite small, and at the close 18⅛@18¼c. is quoted.

London advices of the 28th ult. say:

"A moderate business has been done since Friday last in Chili bars, at £59½ cash, and short fixed prompts, one warrant changing hands at £59⅝, and a few best brands at £60 cash. The total quantity disposed of did not amount to more than 400 tons, and a large proportion of the trade was for net money. Quotations rule at £59½@£60; buyers at the lowest, selling at the highest rate. Owing to the troubles at Buenos Ayres, communication with Chili is interrupted; and the telegrams, with Charters for past fortnight, are not yet to hand. In these circumstances, it is impossible to say when the messages will arrive, and they may perhaps be delayed for a week."

Under date of the 29th, we have received the following:

"Chili Bars rule steady at £59½@£59⅝ cash, £60½ three months prompt, at which figures about 300 tons have changed hands to-day, the market closing with buyers at £59½ cash, sellers asking 2s. 6d.@5s. more.

"Nothing reported in Australian, for which quotations remain as follows: Burra Cake, £70@£72; Wallaroo, £72@74.

"English, steady; Tough Cake, £63@£65; Select Ingot, £65@£67; India Sheets, £69@£70; Y. M. Sheets, 5¾@6d. ₱ ℔."

Tin.—In London, Straits is quoted to-day at £86 on spot and £88 for futures. Singapore is quoted at £26 with Exchange, at 3s. 10⅜d. At the close, Straits on spot is quoted at 19½c., and futures at 20c.; Australian, 19¼c. on spot and futures 19⅝c.; Billiton, 19¼c. on spot, with no futures offering. The sales for the week have amounted to between five and six hundred tons, and up to within a quarter of a cent of the above quotations.

From an exhaustive circular on the tin trade, just issued by Mr. Edward P. White, of 55 Fulton street, we extract the following, having given the statistics of this market in our last:

	Tons.
Regarding supply, we find that for the present year the total, from all sources, for the world's consumption can not exceed	35,000
	Tons.
English tin, from Cornwall	10,000
Banca and Billiton, sales advertised	8,500
Straits and Malacca, for Europe and America	10,500
Australian shipments for Europe and America	6,000
	35,000

Let us now examine the world's consumption and if we may judge that the last six months will come up to the first, the result will be as follows:

	Tons.
United States, first six months of the present year, consumed of all kinds, 7200 tons, making for the year	14,400
Great Britain and Holland delivered during first six months, Banca and Billiton, Straits and Australian, 10,650 tons, thus making for the whole year	21,300
European consumption of English Refined and Common, less 1500 tons absorbed by the United States	8,500
Total probable consumption	44,200

The above figures appear to have been prepared with great care, and the facts stated are the foundation for the present movement in this article.

Advices of the 29th say:

"Although public sales were on a rather moderate scale, from 84s., short prompt down to 83s., three months fixed, a large trade is said to have taken place from 83s.@83½s., cash; 83¼s.@84s., three months open, on which terms the private transactions were reported to amount to some 300 or 400 tons. Closing quotations were 83s.@83¼s., cash, buyers at lowest; sellers of three months fixed, 83s.; buyers same prompt, 83½s., earlier delivery, their option."

Tin Plates.—These have become quite active within the last few days, with an upward tendency. We quote per box as follows: Charcoal ternes, third cross, Melyn grade, $6.62½@$6.75; Allaway, $6.12½@$6.25; Ternes, Allaway grade, $5.50@$5.62½; Dean grade, $5.75@$5.87½; Coke tin, B. V. grade, $5.25@$5.37½; and Ternes, $5.12½@$5.25.

Messrs. Robert Crooks & Co., of Liverpool, under date of June 24th, say of tin and terne plates:

"To last report there is little to add. The moderate advance made in cokes has been quite maintained, while for other descriptions any changes are slight. In charcoal tins, however, it is worth notice that the lower quotations will only be accepted by few makers, and should these get filled up, there would be an immediate considerable advance in this description."

Lead.—Sales of one hundred tons of Newark at 4¾c. are reported. The market closes firm at this figure. The shipments of lead by the St. Louis & San Francisco Railway for the week ending June 28th, amounted to 165 tons.

Spelter and Zinc.—Both of these articles are exceedingly quiet. The former is quoted at 5@5¼c., and the latter at 7¼c.

Antimony.—With a fair business is quoted at 16½@18½, according to brand.

Quicksilver.—The San Francisco *Commercial Herald* of July 1st says:

"Our reserve stock is now reduced to about 6000 flasks. The present spot price for export is 36@36½c. We presume the City of Tokio, hence on Saturday, will carry about 3000 flasks; price not yet declared. Shipments overland since January 1st to date, 2475 flasks.

"The Quicksilver exports by sea from June 25th are as follows:

To Melbourne, per Veleiro, hence June 25th:

	Flasks.	Value.
Thomas Bell & Co	300	$9,180
To Victoria, per Empire, hence June 26th:		
M. C. Hawley & Co	2	58
Totals	302	$9,238
Previously since January 1st, 1880	17,580	540,010
Totals since Jan. 1st, 1880	17,882	$549,248
Totals same period, 1879	27,503	804,736
Decrease in 1880	9,621	$255,488

Receipts for the past week, 2082 flasks."

IRON MARKET REVIEW.

NEW YORK, Friday Evening, July 9.

At last there are signs of the long-prophesied "boom" in iron. The indications in the market for pig-iron are already very much better, and we should not be surprised to see a sharp advance at a very early day. Dispatches from abroad also indicate an improvement there. The consumption of iron has been previously, this year, and will probably continue to be during the rest of the year, very large. A large number of furnaces have already gone out of blast, thereby reducing the make so that the market is again in a position for better prices.

American Pig.—We learn of no important business in this article, although there are considerable negotiations and inquiries. Rumors are current that one or two of the largest companies have offered to pay $25 per ton to have some of their contracts canceled that were made at a lower figure. This price is freely offered for No. 1 Foundry Crane iron without effecting purchases. We quote, nominally, No. 1 Foundry, $24@$28; No. 2, $23.50@$24; and Forge, $21. There may be a few small lots of unknown brands that can be picked up at lower prices, and there may be some "bears" who are willing to offer concessions on "short" sales.

Scotch Pig.—There has been a business of about 2000 tons of various brands, in lots, at slightly improved prices. Cable information from Glasgow to-day reports a stronger and excited market, with advancing freights. We quote Eglinton at $21; Coltness $24; Glengarnock, $22@$23; Summerlee, $22@$23; and Gartsherrie, $21½@$22½.

Messrs. John E. Swan & Co., of Glasgow, under date of June 25th, report 116 furnaces, against 88 at the same time last year. The quantity of iron in Connal & Co.'s stores was 448,083 tons, an increase of 1411 tons for the week. The shipments show an increase of 115,130 tons since Christmas, as compared with the shipments to the same date last year. The imports of Middlesbrough pig-iron for the same period show a decrease of 7666 tons. The following are the quotations of the leading brands of No. 1 pig-iron: Gartsherrie, 54s.; Coltness, 56s.; Langloan, 55s. 6d.; Summerlee, 53s.; Carnbroe, 53s. 6d.; Glengarnock, 52s. 6d.; Eglinton, 50s. Middlesbrough pig-iron was quoted as follows, f. o. b.: No. 1 Foundry, 43s. 6d.; No. 2, 41s.; No. 3, 38s. 6d.; No. 4 Forge, 38s. 6d.

Rails.—The English market is quoted as firmer. The sales here have been about five to six thousand tons of steel, and about the same quantity of iron. The former are quoted at $62 and the latter at $45. There are large inquiries.

Old Rails.—These are very quiet. T's are quoted at $22½@$23, and D. H.'s at $24@$25.

Wrought Scrap.—There has been some business in this, which is quoted firm at $23½@$24.

We publish the following letters from our regular correspondents:

"COLUMBUS, July 7.

"There is a fair demand for pig-iron for immediate use; some consumers are ready to purchase for forward delivery at current prices. There seems to be a feeling among sellers that the decrease in production will have the tendency to stimulate prices in this district.

"KING, GILBERT & WARNER."

"LOUISVILLE, July 6.

"The tone of the market during the last week has been decidedly better. If furnaces generally would accept the inside figures we quote, much larger sales would have been made, but iron is held by them generally at our outside figures, which buyers do not seem ready yet to pay. We think very little iron could be bought at any quotations, but we know of no sales above them, therefore do not change:

"GEORGE H. HULL & CO."

"PHILADELPHIA, July 8.

"PIG-IRON.—The blowing out of furnaces is having the desired effect, as there is a much better feeling this week; in fact, a brisk demand can be reported with a scramble to place orders at prices. During the past week or two, some companies have advanced prices and find takers at the advance. The companies that held on to their iron rather than sell at the extreme low prices, are now getting orders. We quote: No. 1 Gray, $23.50@$25; No. 2, $22.50@$24; Gray Forge, $20@$22; all Philadelphia delivery.

"MANUFACTURED IRON.—Bars, in sympathy with plates and pig-iron, are much firmer, and the Philadelphia stores are talking of advancing a tenth on Monday of next week. In fact, most mills running at this time have about all the orders they care to take. The Philadelphia mills are yet idle, as the men will not work and the mill-owners refuse to accede to their demands. We quote: Bars, 2 2-10@2 35-100c. Philadelphia plate continues in demand, most mills having all they can turn out for some weeks to come, and orders are continuing to come on the market. We quote Plate and Tank Iron, 2 5-10@6c. as to quality and delivery.

"STEEL RAILS.—The demand for steel rails continues good. We quote $60@$62 50 at mills.

"IRON RAILS.—There is more demand and inquiry for

iron rails this week than for some months, and we quote the market prices at $42@$46.50.

"OLD RAILS.—The market for old rails does not advance as fast as other grades of iron. This occurs from the fact that most mills have a stock and refuse to buy, but the knowing ones think this will give place to an advance next month. We quote $23.50@$24.

"MUCK BARS.—The demand for muck bars is increasing, and some mills, working this class of iron, have all the work they want for some time. We quote $38@$42 at mills. JUSTICE COX, JR., & CO."

"PITTSBURG, July 6.

"During the past week, a marked improvement has manifested itself, and sales of pig-iron both for immediate and future delivery have been larger than at any time since last January. The decline seems to have reached its limit, and although there has been no decided reaction, there is at least more firmness on the part of the holders, and a growing belief in better times ahead."

"Quotations are :

	4 mos.		4 mos.
No. 1 Foundry	$24.00@$26.00	M. & White	$20.00@$22.50
No. 2 "	23.00@ 24.00	Hot Blast Ch.	35.00@ 40.00
Gray Forge	21.00@ 23.50	Cold Blast W.	50.00@ 60.00

"A. H. CHILDS."

"RICHMOND, July 5.

"Business good, with unchanged quotations.

"ASA SNYDER."

"ST. LOUIS, July 3.

"The better feeling of which we spoke last week has continued to manifest itself, not so much by any material advance as by more liberal views of purchasers. Some business has been done, and much figuring relative to prospective trade entered into. We look for a brisk demand as soon after the Fourth as shops get to running regularly again.

"CARD & HOFFER."

COAL TRADE REVIEW.

Anthracite.

NEW YORK, Friday Evening, July

As was anticipated in our last, the national holiday caused, for a time, considerable quietness in the coal trade. This however, is now past, and there is again about as much business as there was at the time of our last. The majority of buyers still act as though they expected a disruption of the arrangement existing between the companies, and are buying as little coal as possible. Many of the shrewder buyers, however, believe that the arrangement will be carried out as long as necessary, and that there will be a very active demand for coal and higher prices a little later on, and this class are carrying very liberal stocks. There is nothing at the present time to indicate great activity for some weeks. The present dullness was expected by the companies, and is not likely to affect their plans in any way.

From January 1st to July 3d, the production of coal amounted to 10,321,876 tons—a very large amount, when we consider that during a great portion of this period the mines were only worked half time. By the first of August, the production will have reached about 11,500,000 tons, leaving to be furnished in the last five months of the year an estimated quantity of 13,500,000 tons. The decrease in the output up to July 3d, as compared with last year, amounts to 1,712,122 tons. Of this the Schuylkill region stands over 900,000 tons, the Wyoming about 600,000 tons, and the Lehigh about 200,000 tons.

The production of anthracite coal last week was 410,301 tons, as compared with 391,764 tons the previous week, and 405,509 tons, the corresponding week of 1879. The total product from January 1st to July 3d was 10,321,876 tons, as against 12,033,998 tons for the like period of last year, showing a decrease this year of 1,712,122 tons.

Bituminous.

The demand for this coal is very small and prices are said to be weaker. The falling off in the importations of iron, etc., has made a scarcity of freights from Europe, and many steamers are now bringing over considerable coal, thereby reducing the demand which existed earlier in the year. The Cumberland companies have issued an address which has been largely distributed among the miners of that district. The address calls attention to the disparity of costs between that district and the Clearfield, and calls from the miners for a concession in wages as necessary to the preservation of trade.

Messrs. C. A. Mitlenberger & Co, under date of New Orleans, July 1st, say :

"We can report quite an active market for the month of June, a better demand existing than was anticipated. The larger amount, however, reported in the consumption was sent to sugar planters below city in preparation for next year's crop grinding. The local consumption consisted principally in the steamship and steamboat trade. We have ample stock for five months to come, with surplus stocks at points above city, available for this market, and a few boats of coal en route. The wholesale prices of Pittsburg coal are weaker, at 32½ cents per barrel, while other quotations are without any material change, prices in some instances being nominal.

"Coal on hand in this city July 1st : Pittsburg coal, 148 boats. Consumption during June : Pittsburg coal, 30 boats, 3 barges ; St. Bernard coal, 2 boats. Arrivals during May : None."

STATISTICS OF COAL PRODUCTION.

This is the only Report published that gives full and accurate returns of the production of our Anthracite mines.

Comparative statement for the week ending July 3d, and years from January 1st :

TONS OF 2240 LBS.	1880.		1879.	
	Week.	Year.	Week.	Year.
Wyoming Region.				
D. & H. Canal Co.	48,944	1,438,789	64,459	1,539,924
D. L. & W. RR. Co.	65,707	1,622,429	69,003	1,743,452
Penn. Coal Co.	20,617	470,275	26,504	685,102
L. V. RR. Co.	18,033	476,200	12,062	474,726
P. & N. Y. RR. Co.	1,036	14,322	672	13,705
C. RR. of N. J.	25,051	717,850	12,609	890,139
Penn. Canal Co.	15,266	155,855	10,809	159,721
	194,654	4,895,720	196,118	5,506,859
Lehigh Region.				
L. V. RR. Co.	58,136	1,465,409	50,843	1,556,375
C. RR. of N. J.	38,012	933,717	21,920	1,020,593
S. H. & W. B. RR.	.....	6,331	.....	12,735
	96,148	2,405,457	72,763	2,589,703
Schuylkill Region.				
P. & R. RR. Co.	99,996	2,658,833	124,940	3,516,489
Shamokin & Lykens Val.	18,717	341,447	11,154	393,875
	118,713	3,000,280	136,094	3,910,364
Sullivan Region.				
St Line&Sul.RR.Co.	786	20,419	534	27,072
Total	410,301	10,321,876	405,509	12,033,998
Increase	4,792	.....	.....	.....
Decrease	.....	1,712,122	.....	.....

Total same time in 1875	6,208,380 tons.
" " " " 1876	7,165,324 "
" " " " 1877	9,915,120 "
" " " " 1878	7,212,665 "
" " " " 1879	12,033,998 "

The above table does not include the amount of coal consumed and sold at the mines, which is about six per cent of the whole production.

Belvidere Delaware Railroad Report for the week, and years ending July 3d :

	Week.	Year. 1880.	Year. 1879.
Coal for shipment at Coal Port (Trenton)	1,275	14,876	5,394
Coal for shipment at South Amboy	7,508	193,189	243,016
Coal for distribution	9,261	233,088	167,762
Coal for company's use	2,108	49,711	42,595

Coals Cleared on the Canals of the State of New York for the week ending June 30th, and year from the opening of navigation :

Tons of 2000 lbs.	1880.		1879.	
	Week.	Year.	Week.	Year.
Anthracite	25,643	253,476	38,657	286,469
Bituminous	7,032	67,123	8,790	41,647
Total amount cleared	32,675	320,399	47,447	328,116

The increase in shipments of Cumberland Coal over the Cumberland Branch and Cumberland and Pennsylvania railroads amounts to 269,275 tons, as compared with the corresponding period in 1879.

The Production of Bituminous Coal for the week ending June 3d was as follows :

Tons of 2000 lbs., unless otherwise designated.

	Week. Tons.	Year. Tons.
Cumberland Region, Md.		
Tons of 2240 lbs	43,801	1,028,880
Barclay Region, Pa.		
Barclay RR., tons of 2240 lbs	5,161	220,614
Broad Top Region, Pa.		
Huntingdon & Broad Top RR	1,448	107,161
*East Broad Top	1,326	39,177
Clearfield Region, Pa.		
*Snow Shoe	510	31,847
*Tyrone and Clearfield	40,839	662,091
Alleghany Region, Pa.		
*Pennsylvania RR.	3,735	178,374
Pittsburg Region, Pa.		
*West Penn RR	4,340	136,879
*Southwest Penn. RR.	261	27,816
*Penn & Westmoreland gas-coal, Pa. RR.	16,740	559,949
*Pennsylvania RR.	7,847	269,265

*For the week ending June 28th.

The Production of Coke for the week ending June 28th :

Tons of 2000 lbs.	Week	Year.
Penn. R.R. (Alleghany Region)	853	32,136
West Penn. RR.	994	46,027
Southwest Penn. RR.	24,442	533,574
Penn. & Westmoreland Region, Pa. RR.	1,213	66,709
Pittsburg, Penn. RR.	7,954	228,397
Total	35,456	906,823